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ABSTRACT

Designed for use by trained and certified instructors of a voluntary bicycle driver training course, this handbook provides materials for eight one-hour sessions for beginners or experienced bicyclists. Part 1, Instructor's Guidelines, discusses course objectives, organization, and content; instruction methods; and audiovisual materials. Part 2 contains the course outline for the eight sessions: course orientation; rights and rules; bicycle types, selection, and equipment; operation skills; hazard identification and avoidance; maintenance; bikeways and first aid; and final examination. Each section includes material/text with instructor hints, behavioral objectives, homework assignments, references to optional films, and optional or required "on-the-bicycle" and "on-the-road" experience or skill tests. The final examination and answer sheet are provided. Appendixes, amounting to approximately one-half of the handbook, include the companion student workbook with all exercises and answers, extensive volunteer instructor guidelines, and a dictionary of cycling terms. Under resources are found a listing of books, pamphlets, and manuals; an annotated bibliography of bicycle safety films; and lists of film vendors, books, periodicals, and Wisconsin bicycle clubs. (YLB)

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WISCONSIN

BICYCLE DRIVER TRAINING COURSE

(Instructor's Handbook)

by Ronald L. Thompson
Pedestrian & Bicycle Safety Specialist

Governor's Office of Highway Safety
Don Gehrmann, Coordinator

March 1979

CE 023 971

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TO THE INSTRUCTOR:

The bicycle has become an extremely popular vehicle over the past few years. It is a major means of transportation and recreation for young and old alike. The bicycle is non-polluting in both air and noise categories. It is economical, good for the health and is energy-efficient during these times of rising fuel prices.

This Voluntary Bicycle Driver Training Course is not intended to be an answer to all bicycle safety problems. It is a tool designed to give the bicycle driver the basic rules of the road and to develop safe bicycling habits and proper driving techniques in traffic.

It is hoped that this course will benefit the bicycle enthusiast as well as the novice and will assure a reasonable degree of proficiency among all bicyclists who have completed the course.

Very truly yours,

Lee Sherman Dreyfus

LEE SHERMAN DREYFUS

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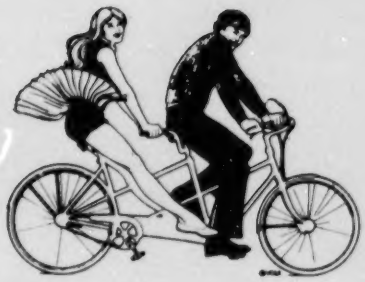

INTRODUCTION

This Bicycle Driver Training Course is intended as a voluntary course to be offered by trained and certified instructors to trainee bicyclists who may be beginner cyclists or experienced cyclists wishing to become more knowledgable and proficient in bicycling - especially as it relates to safety.

The student's course is divided into eight one-hour sessions which cover history of bicycles, rules of the road, types of bicycles, selection of bicycles and equipment, operation skills, hazard identification and avoidance procedures, maintenance, bikeways, first aid and on-road driving.

This instructor's handbook includes; course objectives, course organization, instruction, material/text with instructor hints, student workbook answers, instructor guidelines, dictionary of terms and resources.

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PART I - INSTRUCTOR'S GUIDELINES

A. OBJECTIVES OF THE COURSE

The objectives of this bicycle drivers **training course are three-fold:**

1. To reduce bicyclist fatalities, injuries and property damage accidents.

2. To prepare bicyclists mentally to be safe bicycle drivers by providing them with a thorough knowledge and understanding of laws, habits and techniques important to safe bicycle operation.

3. To provide each bicyclist with adequate "on-the-bicycle" and "on-the-road" experience insuring some reasonable degree of competency and proficiency in bicycle driving.

B. COURSE ORGANIZATION

1. Each course is taught by one or more individuals who have completed an instructor training course and have been certified as qualified bicycle safety instructors. This includes completion of a 10-hour instructor's training course.

2. The basic course structure is outlined below.

   a. Class size should not be greater than 30 and a suggested size would be between 15-20 students.

   b. Costs - Fees charged to attendees of this course should not exceed the cost of materials and administrative costs. It is suggested, where possible, existing manpower or facilities be "donated" by governmental agencies or civic/service organizations and that free materials be used whenever possible to keep all costs to the attendees to a minimum.

   c. Insurance - Governmental agencies should be covered under their existing insurance policies or a "rider" may have to be attached to the original policy. Civic/service organizations should check with their insurance agent to ascertain if they have adequate coverage for such a program.

C. METHODS OF INSTRUCTION

1. Lecture - Although oftentimes the most widely used method of instruction, it may not be the best suited for "getting the point" across to the novice bicyclist. There are times, of course, when this method is the only avenue of making the information available to the student. When the lecture method is used, it should be kept short, to the point and made interesting.

2. Demonstration by instructor - This method should be used frequently to explain such things as proper mounting and dismounting, pedaling, how to set up a bicycle to fit the driver, turning maneuvers, etc. Demonstrations by the instructor may best be followed by a demonstration by the student to make certain he/she understands the demonstrated subject matter.

3. Student participation - This method is perhaps the most important method of instruction used by the instructor. A student learns best while doing and "hands-on"

experience will enable the instructor to understand the student's attitudes, feelings, strengths, weaknesses and determine competency. Student participation can be in the form of

a. Group discussion - Assign a group leader and a topic for discussion to the group and have them discuss this as a group in front of the whole class or by simply presenting their findings following discussion. Group discussions should be continued only as long as meaningful discussion exists.

b. Problem solving - A problem can be assigned individually on a problem can be assigned to a group for discussion. Thought-provoking questions may also be attached to the problem. It may also be used as an individual homework assignment.

c. Panel presentation - This method may be used to assign students to study some particular aspect of bicycling safety and making a report on it. Number of members should be limited from 3 to 5.

d. Experience via trial and error - This method will be used primarily in the on-the-bike phase whereby a student attempts to master some skill and through several attempts, becomes competent.

4. Audio/Visual materials should be used whenever possible to enhance learning and make the presentations interesting. Most all of the materials should be readily available at the local community or through a state agency. Materials include -

a. Chalk-board - illustrations, diagrams, lists, etcc.
b. Charts - illustrations, diagrams
c. Tape recorder - sound effects, taped messages, etc.
d. Films - many good films available to supplement instruction
e. Slides - depict local situations, hazards, programs, etc.
f. Overhead projector - illustrations, lists, graphs, etc.
g. Handouts - many good handouts available to supplement instruction
h. Exhibits - show various bikes, equipment, photos, etc.

5. Teaching Tips - See teaching tips in Appendix and in Course Outline

D. FORMS & TESTS

Various forms and tests are needed to carry out a course of this nature. The following forms are exhibited in the Appendix of this Instructor's manual. -

1. Instructor course registration card
2. Instructor certification application
3. Instructor certificate
4. Student course registration card
5. Student certificate
6. Roster and remittance form
7. Written test
8. Skill tests
9. Course evaluation

E. COURSE CONTENT

The student training course is divided into 8 sessions. Each session includes:

1. A lesson plan in outline form
2. Competency based behavioral objectives
3. Suggested activities for each session
4. Comments and teaching aids for each session

F. RESOURCES AND MATERIALS

A complete up-to-date resource and materials list is provided in the Appendix of this Guide, including

1. Films and slides
2. Books
3. Pamphlets
4. Resource persons/organizations/agencies

PART II

STUDENT TRAINING COURSE OUTLINE

The following is the suggested outline to be followed by the instructor. On the left are the topics to be covered. In the right column are various notes and hints on how to enhance the presentation. Of course, the teacher should expand on these areas whenever possible. Sessions normally run one hour but may run up to 1 1/2 hours if time permits. Parents should be welcomed to observe or take the course.

SESSION #1

A. Introduction & Welcome - Instructor introduces himself/herself to group and highlights his/her background, makes students welcome.

Student does not need his/her bicycle for this session.

B. Course Registration - Instructor hands out required forms to students, explains procedures in filling them out, assists where needed and collects forms and fees.

C. Have each student introduce him/herself and briefly tell of any bicycling experience they may have.

This helps students get to know each other better.

D. Explain the purpose of the course

1. Reduce fatalities
2. Reduce injuries
3. Reduce bicycle accidents
4. Reduce bicyclist violations
5. Provide bicyclist with knowledge
6. Instill safe bicycling habits & attitudes
7. Prepare them with competence to drive on street

E. Explain the course content:

1. Bicycle rights, rules and responsibilities
2. Types of bicycles and how to select one that's right for you
3. Bicycle parts and required equipment
4. Preparing to drive and basic skills
5. Driving on a bicycle range
6. Identifying hazards and hazard avoidance
7. Driving on the street
8. Bicycle maintenance
9. Emergencies and first aid
10. Written & skill test

Instructor may want to expand on each area, explaining each in a little more detail.

F. Definitions - the following words need to be understood by students:

1. "Bicycle" - every device propelled by the feet acting upon pedals and having wheels any 2 of which are not less than 14 inches in diameter.

2. "Bicycle lane" - that portion of a roadway set aside by the governing body of any city, town, village or county for the exclusive use of bicycles or other modes of travel where permitted under s.349.23(2)(a), and so designated by appropriate signs and markings.

3. "Bike route" - any bicycle lane, bicycle way or highway which has been duly designated by the governing body of any city, town, village or county and which is identified by appropriate signs and markings.

4. "Bicycle way" - any path or sidewalk or portion thereof designated for the use of bicycles by the governing body of any city, town, village or county.

See Glossary in Appendix.

G. Since the bicycle is placed in an environment shared with many types of vehicles (cars, buses, trucks, motorcycles, etc.) it is important they understand the total traffic environment. Discuss various types of roadways, roadway users and environmental cocerns.

Have students list road users, types of roads, and environmental factors.

H. Bicycle Users Include:

1. Adults
2. Children
3. Men
4. Women
5. Old
6. Young

List specific uses of a motor vehicle in one column and next to it uses of bicycle- compare.

I. Bicycle Uses Include:

1. Recreation
2. Touring
3. Commuting
4. Business
5. Physical fitness
6. Racing

Note: If time permits, the History of a Bike from Session #2 may be included here.

Behavioral Objectives: At the end of the hour, each student should be able to repeat and explain in their own words or write:

1. The purpose of the course
2. A brief outline of course outline
3. Definitions of words defined in this chapter
4. A synopsis of the History of a Bicycle (optional)

(1) Bicycles are Beautiful - 25 minutes, color, P-I-J-S-A
(2) Bike Driver Mike P-I

May supplement narration

Homework Assignment: (1) Complete unit one in workbook.
(2) Read pages 9-10 in Bicycle Driver's Handbook

SESSION #2

A. Explain briefly the history of a bicycle

1. The first bicycle was made in France in late 1700's. It was made of wood and had no pedals or way of steering. This vehicle called a Celifere was straddled and pushed along the ground with the feet.

2. Around 1816, Baron Karl Von Drais, a German forester, designed the front wheel so it could be turned. These were called Hobby-Horses or Draisines and they had iron tires over wooden wheels. The ladies' model had no top tube.

3. Other versions included models with treadles, a ratchet device pumped with hands, and pedals.

4. The first U.S. patent for a pedal powered bicycle was granted in 1866. The front wheel was slightly larger than the rear.

5. In the 1870's bikes had wire spokes, hard rubber tires, adjustable seats and cranks.

6. The highwheeler or ordinary bicycle came into the picture about 1875. The large wheel was between 4-5 feet tall. They were difficult to mount and the "header" or being thrown over the handlebars was not uncommon.

7. In 1880 the League of American Wheelmen (LAW) was formed and did much to improve road conditions. They sponsored century rides (i.e. biking 100 miles within 10 hours)

8. Safety bicycles were invented to eliminate the hazard of headers - both wheels were the same size. It was powered by a chain and sprocket, pneumatic tires were added and the coaster brake invented.

9. Bicycle racing became an international sport in the 1890's. However, bicycling dropped off as the motor vehicle entered the picture. But before it did, clothing styles changed and roads were improved as a result of bicyclists' demands. Improvements made on bicycles were incorporated into the growing motor vehicle technology.

10. Bicycle sales began to climb in the 1960's and peaked in 1972-1974 when the bicycle actually outsold the automobile.

11. Wisconsin Bikeway developed in 1965 and Bikecentenial Trans-America Bike Trail developed in 1976.

This history is simply to give the student an appreciation of the bicycle as a vehicle. Do not spend a great deal of time on this area.

Film - Bicycles are Beautiful - includes a small segment on history of bicycle; Film strip - I'm No Fool With a Bicycle - also addresses early bicycles.

Some books mentioned in appendix have photos and illustrations of early bicycles.

B. Bicycle Rights & Rules (excerpts from Wisconsin Statutes)

1. 346.02 Applicability
(4) APPLICABILITY TO PERSONS RIDING BICYCLES. Subject to the special provisions applicable to bicycles, every person riding a bicycle upon a roadway is granted all the rights and is subject to all the duties which ch.346 grants or applies to the operator of a vehicle, except those provisions which by their express terms apply only to motor vehicles or which by their very nature would have no application to bicycles.

NOTE: These excerpts are presented as they appear in the statutes. It is recommended that instructors use these only as a guide and present the law to the student in a "layman's" language.

2. 346.075 Overtaking and passing bicycles
The operator of a motor vehicle overtaking a bicycle proceeding in the same direction shall exercise due care, leaving a safe distance, but in no case less than 3 feet clearance when passing the bicycle and shall maintain clearance until safely past the overtaken bicycle.

Emphasize that a bicycle is a vehicle.

3. 346.16 Use of controlled-access highways, expressways and freeways.
(2) No pedestrian or person riding a bicycle or other nonmotorized vehicle or person operating a power driven cycle or motor bicycle shall go upon any expressway or freeway when official signs have been erected prohibiting such persons from using the expressway or freeway.

4. 346.17 Penalty
(4) Any person violating s.346.075 may be required to forfeit not less than $25 nor more than $200 for the first offense and, not less than $50 nor more than $500 for the 2nd subsequent violation within 4 years.

5. 346.34 Turning movements and required signals on turning and stopping. (1) TURNING.(a) No person may:
1. Turn a vehicle at an intersection unless the vehicle is in proper position upon the roadway as required in s.346.31.
2. Turn a vehicle to enter a private road or driveway unless the vehicle is in proper position on the roadway as required in s.346.32.
3. Turn a vehicle from a direct course or move right or left upon a roadway unless and until such movement can be made with reasonable safety.
(b) In the event any other traffic may be affected by such movement, no person may so turn any vehicle without giving an appropriate signal in the manner provided in s.346.35. When given by the operator of a vehicle other than a bicycle, such signal shall be given continuously during not less than the last 100 feet traveled by the vehicle before turning. The operator of a bicycle shall give such signal continuously during not less than the last 50 feet traveled before turning.

Show via chalk board, overhead, felt board, etc.

(2) STOPPING. No person may stop or suddenly decrease the speed of a vehicle without first giving an appropriate signal in the manner provided in s.346.35 to the operator of any vehicle immediately to the rear when there is opportunity to give such signal. This subsection does not apply to the operator of a bicycle approaching an official stop sign or traffic control signal.

Is it necessary to have foot on ground?

6. 346.35 Method of giving signals on turning and stopping. Whenever a stop or turn signal is required by s.346.3[illegible], such signal may in any event be given by a signal lamp or lamps of a type meeting the specifications set forth in s.347.15. Except as provided in s.347.15 (3m), such signals also may be given by the hand and arm in lieu of or in addition to signals by signal lamp. When given by hand and arm, such signals shall be given from the left side of the vehicle in the following manner and shall indicate as follows:
   (1) Left turn-Hand and arm extended horizontally.
   (2) Right turn -Hand and arm extended upward.
   (3) Stop or decrease speed-Hand and arm extended downward.

Have <u>each</u> student demonstrate the signals in class.

7. 346.43 Penalty
   (1) (b) 2. Any operator of a bicycle violating s.346.37 or 346.39 (duty to obey traffic lights) may be required to forfeit not more than $20.

8. 346.49 Penalty
   (1)(b) Any operator of a bicycle violating s.346.46 (duty to obey stop signs) may be required to forfeit not more than $20.
   (2)(b) Any operator of a bicycle violating s.346.44 (duty to stop at signals indicating approach of train) may be required to forfeit not more than $20.

9. 346.60 Penalty
   (5)(a) Any operator of a bicycle who violates s.346.57 (speed limits) may be required to forfeit not more than $20.
   (b) Any operator of a bicycle who violates s.346.59 (operating so slow as to impede the normal and reasonable flow of traffic and not yielding to overtaking traffic) may be required to forfeit not more than $10.

10. 346.77 Responsibility of parent or guardian for violation of bicycle and play vehicle regulations. No parent or guardian of any child shall authorize or knowingly permit such child to violate any of the provisions of ss.346.78 to 346.81.

11. 346.78 Play vehicles not to be used on roadway. No person riding upon any coaster, roller skates, sled, toboggan or toy vehicle shall attach the same or himself to any vehicle upon a roadway or go upon any roadway except while crossing a roadway at a crosswalk.

Have students identify play vehicles and list on board.

12. 346.79 Special rules applicable to bicycles. Whenever a bicycle is operated upon a highway, bicycle lane or bicycle way the following rules apply:
(1) A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.
(2) No bicycle shall be used to carry more persons at one time than the number for which it is designed and equipped.
(3) No person operating a bicycle shall carry any package, bundle or article which prevents the operator from keeping at least one hand upon the handlebars.
(4) No person riding a bicycle shall attach himself or his bicycle to any vehicle upon a roadway.

13. 346.80 Riding Bicycle on Roadway. (1) Unless preparing to make a left turn, every person operating a bicycle upon a roadway carrying 2-way traffic shall ride as near as practicable to the right edge of the unobstructed traveled roadway, including operators who are riding 2 abreast where permitted under sub. (2). On one-way roadways, the operator of the bicycle shall ride as near as practicable to the right edge or left edge of the unobstructed traveled roadway, including operators who are riding 2 abreast where permitted under sub. (2). Every person operating a bicycle upon a roadway shall exercise due care when passing a standing vehicle or one proceeding in the same direction, allowing a minimum of 3 feet between the bicycle and the vehicle.

An illustration on the board will enhance this as well as some examples why it is done in these prescribed ways.

(2) Persons riding bicycles upon a roadway shall ride single file on all roadways which have center lines or lane lines indicated by painting or other markings and in all unincorporated areas. On roadways not divided by painted or other marked center lines or lane lines, bicycle operators may ride 2 abreast in incorporated areas.
(3) Wherever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.
(4) No person may operate a bicycle upon a roadway where a sign is erected indicating that bicycle riding is prohibited.

Seven reasons for <u>not</u> driving on left presented in Appendix.

(5) Every rider of a bicycle shall, upon entering on a highway, yield the right-of-way to motor vehicles.".

14. 346.802 Riding bicycle on bicycle lane. (1)(a) Unless 2-way traffic is authorized under par. (b), every person operating a bicycle upon a bicycle lane shall ride in the same direction in which vehicular traffic on the lane of the roadway nearest the bicycle lane is traveling.
(b) The governing body of any city, town, village or county may authorize 2-way traffic on any portion of a roadway which it has set aside as a bicycle lane. Appropriate traffic signs shall be installed on all bicycle lanes open to 2-way traffic.

(2)(a) Unless otherwise provided under par.(b), a person operating a bicycle may enter or leave a bicycle lane only at intersections or at driveways adjoining the bicycle lane.

(b) A person may leave a bicycle lane at any point by dismounting from the bicycle and walking it out of the lane. A person may enter a bicycle lane at any point by walking his bicycle into the lane and then mounting it.

(3) Every person operating a bicycle upon a bicycle lane shall exercise due care and give an audible signal when passing a bicycle rider proceeding in the same direction.

Audible signal may be horn, bell or voice.

(4) Every operator of a bicycle entering a bicycle lane shall yield the right-of-way to all bicycles in the bicycle lane. Upon leaving a bicycle lane, the operator of a bicycle shall yield the right-of-way to all vehicles and pedestrians.

15. 346.803 Riding bicycle on bicycle way.(1) Every person operating a bicycle upon a bicycle way shall:

(a) Exercise due care and give an audible signal when passing a bicycle rider or a pedestrian proceeding in the same direction.

(b) Obey each traffic signal or sign facing a roadway which runs parallel and adjacent to a bicycle way.

(2) Every person operating a bicycle upon a bicycle way open to 2-way traffic shall ride on the right side of the bicycle way.

(3) Every operator of a bicycle entering a bicycle way shall yield the right-of-way to all bicycles and pedestrians in the bicycle way.

16. 346.804 Riding bicycle on sidewalk. When local authorities under s.346.94(1) permit bicycles on the sidewalk, every person operating a bicycle upon a sidewalk shall yield the right-of-way to any pedestrian and shall exercise due care and give audible signal when passing a bicycle rider or pedestrian proceeding in the same direction.

17. 346.81 Lamps and other equipment on bicycles. (1) No person may operate a bicycle upon a highway, bicycle lane or bicycle way during hours of darkness unless such bicycle is equipped with or the operator is wearing a lamp emitting a white light visible from a distance of at least 500 feet to the front of such bicycle. Such bicycle shall also be equipped with a red reflector that has a diameter of at least 2 inches of surface area on the rear so mounted and maintained as to be visible from all distances from 50 to 500 feet to the rear when directly in front of lawful upper beams of headlamps on a motor vehicle. A lamp emitting a red light visible from a distance of 500 feet to the rear may be used in addition to but not in lieu of the red reflector.

Have examples of various lights displayed.

(2) No person may operate a bicycle upon a highway, bicycle lane or bicycle way unless it is equipped with a brake in good working condition, adequate to control the movement of and to stop the bicycle whenever necessary."

(3) No bicycle may be equipped with nor may any person riding upon a bicycle use any siren or compression whistle.

18. 346.82 Penalty
(1) Any person violating ss.346.77, 346.79(1) to (3), 346.80 to 346.804 or 346.81(2) may be required to forfeit not more than $20.
(2) Any person violating s.346.78 or 346.79(4) may be required to forfeit not less than $10 nor more than $20 for the first offense and not less than $25 nor more than $50 for the 2d or subsequent conviction within a year.
(3) Any person violating s.346.81(1) may be required to forfeit not less than $10 nor more than $200.

19. 346.94 Miscellaneous prohibited acts. (1) DRIVING ON SIDEWALK. The operator of a vehicle shall not drive upon any sidewalk area except at a permanent or temporarily established driveway unless permitted to do so by the local authorities.
(11) TOWING SLEDS, ETC. No person shall operate any vehicle or combination of vehicles upon a highway when such vehicle or combination of vehicles is towing any toboggan, sled, skis, bicycle, skates or toy vehicle bearing any person.
(12) DRIVING ON BICYCLE LANE OR BICYCLE WAY. No operator of a motor vehicle may drive upon a bicycle lane or bicycle way except to enter a driveway or to enter or leave a parking space located adjacent to the bicycle lane or bicycle way. Persons operating a motor vehicle upon a bicycle lane or bicycle way shall yield the right-of-way to all bicycles within the bicycle lane or bicycle way.

Behavioral Objectives: At the end of this hour, each student should be able to:

1. Give a synopsis of the history of a bicycle (optional)
2. List laws relating to bicycles and bicycling
3. Explain how laws affect themselves.
4. Explain in own words why we have laws

Optional Films:
(1) Bicycles Are Beautiful - 25 minutes, color, P-I-J-S-A
(2) Bike Driver Mike P-I

Homework Assignment:
(1) Complete unit 2 in workbook.
(2) Bring bicycle to next session.
(3) Read pages 4-8, 11 & 22 in Bicycle Driver's Handbook.

SESSION #3

A. Types of Bicycles

1. THE SINGLE SPEED

The single speed middleweight bicycle is probably the most common. Its weight is about 50-60 pounds. The tires on this bicycle are 1 3/4" tires with innertubes usually inflated to 30 pounds. The wheel sizes range from 16" to 26". Frame sizes come in 17, 19, 21 and 23 inches in 26" wheel size only. The middleweight may have coaster or caliper (hand) brakes. The balloon tired middleweight bike is heavier than the regular middleweight and weighs about 60-70 pounds. Both of these kinds of bicycles are very strong and durable and can take a fair amount of punishment. Some high rise bicycles may also be included in this class.

It is suggested that arrangements be made by instructor to have samples of these bikes on display.

2. THE THREE-SPEED

The three-speed bicycle is built for more speed and easier handling and riding. It comes mainly in 17, 19, 21 and 23" frames and with 26" wheels. It uses 1 3/8" tires with innertubes inflated to 50 pounds of pressure. This bicycle comes with either a coaster brake or caliper brakes or a combination of rear coaster brake and front caliper brake. The gear train is housed in the rear hub. This class of bicycle usually weighs 36-40 pounds. A five-speed enclosed hub is also available.

Also, it is strongly recommended that a bicycle shop owner be invited in as a guest speaker to explain the various types of bicycles.

3. THE DERAILLEUR

The derailleur bicycle comes with either 5, 10, or 15 speeds. The five-speed has a single chain wheel and a cluster of five freewheel sprockets in the rear. A rear derailleur "hops" the chain from one sprocket to another. The ten-speed has two front chain wheels and five sprockets on the rear freewheel gear cluster.

These bicycles have 27" wheels and come in 19" to 25" frame sizes. The best bicycles in this class weigh around 22 pounds and are made with double butted alloy steel. Most derailleur high performance bicycles have front and rear caliper brakes, taped drop bars, "rat trap" pedals with toe clips, a racing saddle, quick release hubs, and sew-up or tubular tires. Tubular tires carry about 100 pounds of pressure and the innertube type carries about 75 pounds of pressure.

4. THE FAD BIKE

Fad bikes come in many shapes and sizes. The most common type is the high rise bicycle, designed for fun, with the high rise handlebars, banana seat and sissy bar. High rise bicycles can be purchased in many combinations such as middleweight with five or ten-speed derailleur. They usually come with 20" wheels. Other fad bikes include small bikes that fold up, tandems and unicycles.

Adult tricycles are more stable than "two wheelers" and are frequently found among older adults and the handicapped. Tricycles come with single speed, three speed or fixed gears.

Tandem bicycles are becoming more popular. They come in a heavy balloon tire model or a ten-speed model. Two riders working together can cover long distances quite easily.

B. Bicycle Selection

Using bicycle shop owner or bicycle club member for assistance has great advantages.

1. It is important to get a bicycle to fit your needs. Too often a 10 speed is purchased when it is not needed. Type of riding, length of riding, terraine, & use of bicycle, must all be assessed.

2. After selection of style comes fit. Far too many young persons are seen driving bicycles too large for them, a contributing factor to many accidents. The correct saddle height for <u>beginning</u> drivers permits both feet to rest comfortably on the ground when they are seated and their legs are extended.

Have various students try out display bicycles for size. Adjust one or two bicycles to fit volunteer students.

For experienced drivers the right frame size should allow the driver to straddle the upper horizontal bar comfortably and permit easy mounting or dismounting. One inch clearance between crotch and top tube is adequate. The frame size should be 9 to 10 inches less than the driver's inseam measurement. Measure the leg length of the driver from crotch to floor while he is wearing flat shoes.

When the experienced driver sits on the saddle with the heel of one foot on the low pedal and grips the handlebars, the leg, thigh and the heel should form a straight line. The upper part of the body should lean slightly forward and his hands should fall naturally to the handlebar grips without stretching.

A reputable bicycle dealer will be meticulous in making sure that the bicycle fits before the customer takes delivery. For this reason it is best to purchase a bicycle that is already assembled. If it is not assembled, make sure that easily understood directions are supplied.

C. Bicycle Equipment

1. REQUIRED EQUIPMENT

Specifically required under Wisconsin State Law are:

- A brake in good working condition, adequate to control the movement of and stop the bicycle whenever necessary.

- If driven during the hours of darkness, the bicycle must be equipped, or the driver must wear, a light emitting a white light visible from a distance of at least 500 feet.

- A bicycle must also be equipped with a red reflector with a diameter of at least 2 inches of surface area, mounted on the rear and maintained so as to be visible from all distances from 50 to 500 feet to the rear when directly in front of the lawful upper beams of headlamps on a motor vehicle. A lamp emitting a red light visible from a distance of 500 feet to the rear may be used in addition to but not in lieu of the red reflector.

Have students explain why these required items are important. List on board.

Have students point this equipment out on their bikes.

2. CPSC STANDARDS

The Consumer Product Safety Commission requires many safety items, ie. a red rear reflector, a white front reflector, 2 white or amber reflectors in front spokes, 2 red or white reflectors in the rear spokes, 4 pedal reflectors, seat post marking , chainguard and various tests prior to sale.

For more information, consult the Appendix for CPSC address.

3. OPTIONAL EQUIPMENT

In addition to the equipment required by state law, you can buy optional equipment for your bicycle just as you can for an automobile. You may wish to add some of these items for purposes of safety, appearance or convenience. (Not listed in any order of importance.)

Have various equipment on display and show the item as you talk about it.

a. A Red Tail Light: This light can be seen better than a reflector. There are two kinds...battery or generator operated. However, a light cannot replace the reflector required by law. Generator lights do, go out when stopped.

b. Turn Signal. You can buy a light signal which shows which way you intend to turn. However, hand signals must still be used.

c. A Rearview Mirror. This enables you to check the traffic behind without turning around. Types available are frame mounted, handlebar mounted, eye glass mounted or hand mounted.

Warning- A full view to rear is not always visible. Vibration may occur and maintenance may be a problem. Also it may be a gore hazard.

d. Chain Guard. Most bikes have them..if yours doesn't, it's best to put one on, or wear clamps or strips designed to go around pants to keep them out of chain.

e. Speedometer: This instrument is for those drivers who like to know how fast they are going.

f. Odometer: Enables the driver to know how far the bicycle has been driven.

g. Locks: You can buy locking devices with special chains or cables. Best if they are of top quality and case hardened.

h. Training Wheels: For use on small bikes to help younger children learn to ride quickly and safely.

(not recommended)

i. Kick Stand: If your bicycle didn't come with one, it may be a wise investment. However, a lightweight bike may be blown over on its derailleur if not secured to a stationary object.

j. Non-serrated Aluminum Tire Rims: These prevent water build-up on the rims and allow more positive braking when it is wet.

k. T-light: With a white light to the front and red to the rear, this safety light is worn on the left leg or preferably on both legs. The leg pumping action makes the light very noticeable. Note: Light is mainly for visibility to motorists - not to see with.

l. Reflectorized Materials: A variety of reflectorized materials are available to make the bicycle driver more noticeable. These include the tape on the handlebars, strips for the frame and fenders, and materials that can be sewn to the driver's clothing. Particularly noticeable are reflecting materials on the pedals. Reflectorized tires and spoke and frame reflectors are also available. All are highly recommended if night driving is frequent.

Spoke reflectors must be frequently checked for tightness and cracks. Keep all reflectors clean.

m. Safety Flag: Enhances the visibility of the cyclist. Especially advantageous at various blind spots such as entering street from alleyway, entering from driveway where bicyclist may be hidden by large shrubs, or on heavily traveled city streets where cars are lined up and bicycle is dwarfed and not easily noticed by motorists. Also valuable in rural areas where bicyclists can better be spotted from a long way off by approaching traffic. However, various hazards such as difficulty mounting, sharp point , whip, and eye hazards should be pointed out.

n. Rear Carrier: For packages, books and other items. This is a safe and easy way to haul things. Wire saddle baskets can be mounted on rear fenders or carriers for more capacity. Handlebar carriers for heavy loads are not recommended. They can interfere with steering and balance. Carriers and bags for touring are also available.

o. Child Carriers: There are many carriers available for carrying small children on a bicycle. The only kind recommended are those that fasten to the rear of the bicycle. Handlebar carriers are dangerous. They unbalance the bicycle and make steering practically impossible. DO NOT USE THEM.

The rear carrier should be equipped with side rails, a restraining strap, a foot rest, and leg shields which prevent the child's feet from getting caught in the spokes.

p. Car Carriers: The recommended way to carry bicycles on a car is to fasten them securely to car top carriers. Many people prefer to carry them on commercially available carriers which attach to the front or rear of a car. If this kind of carrier is used, it must be constructed and placed so that it does not interfere with the legal requirements of an automobile. That is, it must not obstruct the visibility of the car's light or license plate, or interfere with the driver's vision.

q. Touring/Pannier Bags: These bags are used to carry equipment and articles needed while on a day tour or an extended tour.

r. Helmet: Since many fatal and injury accidents result in injury to the head, it is a good idea to consider wearing head protection. Most bicycle helmets are light and well ventilated.

s. Toe Clips: Many experienced cyclists use toe clips on their rat trap pedals. These cages position the foot correctly on the pedal at all times and allow the driver to "pull up" as well as "push down" on the pedal providing greater efficiency when cycling.

Toe clips suggested for metal pedals to prevent slippage. Dangers of using clips should be mentioned- don't wear tight or foot removal may be difficult.

t. Cycling Shoes: These shoes have a cleat on the sole that match the toe clip and pedal providing great efficiency while racing or touring. Some shoes may have a special rubber sole to serve the same purpose as the cleat. Caution should be taken as removing feet from toe clips in an emergency may be difficult and an accident could result.

u. Gloves: Many experienced bicycle drivers and racers will wear cycling gloves to protect their hands in case of a spill. Padded gloves also greatly combat handlebar palsy, a numbness of the palm of the hand from pressure on nerves, usually a result of extended touring.

v. Water Bottle: If any long distance riding is to be done, especially in hot weather, a water bottle is necessary. Take on **water before** dehydration sets in.

w. Racing Saddle: The narrow saddle reduces chaffing of inside of leg and allows muscles to work without being pinched by wide saddle. Spring saddles also rob power.

x. Drop Handlebars: Although they look uncomfortable, these bars distribute weight better and provide driver with various hand positions to alleviate handlebar palsy and fatigue and streamline cyclist.

y. Bicycling Clothes: Bicycling jerseys have pockets on front and back enabling the carrying of many items and are usually bright multi-colored. Cycling shorts usually are black and have a chamois sewen inside crotch to prevent chaffing.

z. Hand-pump: A good tool to have in case of a flat. Hand pumps really should be used instead or service station air hoses because such air systems are under high pressure and a bicycle tire may inflate too rapidly and explode. Hand pumps come in floor stand models and bicycle mounted models. A tire air pressure guage is also helpful to have.

4. Bicycle Parts

The following bicycle parts should be pointed out:

1. Top tube
2. Head tube
3. Down tube
4. Seat tube
5. Chain stay
6. Seat stay
7. Bottom bracket
8. Stem
9. Handlebars (tape, plug, grips)
10. Fork
11. Saddle & post
12. Tire (Clincher & Tubular sew-up)
13. Inner tube & valve
14. Rim
15. Spokes
16. Hub
17. Front brake lever
18. Front brake
19. Rear brake lever
20. Rear brake
21. Shift lever (s)
22. Cables
23. Front Derailleur
24. Rear Derailleur
25. Chain wheel
26. Chain
27. Chain guard
28. Crank
29. Pedals
30. Toe clips
31. Freewheel
32. Reflectors
33. Light
34. Horn
35. Fenders
36. Carrier

Have a bicycle in front of class. A 10-speed may be more appealing as it is so much in demand. However, age group should be considered and perhaps 2 or 3 kinds of bikes used to point out parts.

As the instructor points to the part, have student point to same part on his/her bicycle.

5. Safeguarding the Bicycle

Now that you have selected the bicycle you want, adjusted it to your measurements and have the required equipment on it, how do you safeguard it? Some ideas on safeguarding your bicycle include:

Show the various locks available.

a. Placing your bicycle inside your house or garage and locking doors.

b. Placing your bicycle in plain sight where you can watch it.

Have each student properly lock his/her bicycle.

c. Locking your bicycle to a stationary object using a quality chain/cable and lock.

   i. Place chain/cable through both wheels and frame and place lock away from ground
   ii. If chain/cable is not long enough, place through rear wheel frame and stationary object.
   iii. Some locks will only fit around bicycle frame and a steel post or bike security fixture.

d. Record name and serial number.

e. Register/license your bicycle

f. Engrave driver's license number on frame

g. Insure the bicycle

Remember, by locking your bicycle, you are in effect buying time that the potential thief cannot afford if discovery is imminent. Lock and store where well lighted and people are visible.

Behavioral Objectives: At the end of this hour the student should be able to:

1. Identify various types of bicycles
2. Select a bicycle to fit needs
3. Select required equipment and optional equipment to meet needs
4. Adjust bicycle to fit the driver
5. Identify the parts of a bicycle
6. Lock bicycle properly
7. Explain how to safeguarddbbicycle

Each student must be able to do these either individually, by wnkoown test or oral test.

Optional Film: Bicycling on the Safe Side, 12 min., Color, I-J-S-A

Homework Assignment- (1) Complete unit 3 in the workbook.
(2) Register and license your bicycle if not presently registered.
(3) Read pages 14-20 in Bicycle Driver's Handbook.

SESSION #4

A. Preparing to Drive

1. Is the bicycle ready?

It is important that a pre-drive inspection be done prior to driving the bicycle anywhere. A quick visual check may suffice in some cases and a test by feel while driving in others. The following is a pre-drive check:

a. Tires inflated properly
b. Tire tread sufficient and no cuts or bulges
c. Spokes tight and none missing
d. Wheels run true
e. Steering not too loose nor too tight
f. Front brake and cable work
g. Rear brake and cable work
h. Front Derailleur and cable work
i. Rear Derailleur and cable work
j. No loose parts
k. Batteries for light and horn operate
l. Reflectors clean and in place

Demonstrate a pre-drive inspection to class. Have students go through safety check on their own bicycles.

2. Am I ready? Ask yourself these questions.

a. Do I wear bright colored clothes by day and reflective materials on clothes at night?
b. Do I know the rules of the road?
c. Am I physically fit to drive?
d. Have I made proper precautions for loose clothing, i.e. pants clips for flare pants?
e. Have I the correct clothing for the weather?

Have examples ready to display. Explain how to wear.

3. Have I chosen a safe route?

a. The route should include bicycle paths, lanes and routes where provided.

b. Low volume city streets and town and county roads should be selected over busy city streets and state or federal highways

c. Streets and highways should be in good repair. Controlled intersections and non-blind intersections should be given preference.

Have county maps available and have groups pick a safe route.

B. Bicycle Operation

If you don't know how to drive, here's how to learn:

1. The bike is like a coin, it will balance as long as it is kept rolling

If a non-driver is in class, use that student to show proper methods of learning. Work with non-drivers before allowing on range.

2. To eliminate fears of falling, use a small bicycle and make sure both feet can touch the ground when sitting on the saddle.

3. Choose an open area with no obstacles or hazards. An empty parking lot or large grassy area is fine. A very slight slope may help. If alone, sit on the saddle and scoot the bicycle along by pushing with both feet at once. As distance increases, a feel for balance and steering the bicycle will develop. Rest feet on pedals and as confidence grows, pedal as you go.

4. If someone is along to help, he/she should run along behind the bike while holding onto the rear of the seat out of the driver's vision. The person running along should let go periodically for increasingly longer times, doing it so the driver will be unaware of being upder his/her own power and balance.

5. Training wheels are <u>not</u> recommended.

C. Basic Skills (to be practiced first away from traffic)

Have student(s) demonstrate after you explain proper procedures in each of these skills.

1. Mounting - the best and safest way is to straddle the bicycle. Place the right pedal in a two o'clock position. Check to the rear over left shoulder and if there is no traffic, push down on right pedal and simultaneously lift your body up and onto saddle and place left foot on left pedal and pedal normally.

2. Dismounting - Signal for a stop and brake using either the rear brake only or a combination of the front and rear brakes. Pull yourself forward off the saddle as you come to a complete halt and step down off the pedals and straddle the bicycle.

3. Pedalling: The correct placement of the foot on the pedal is important. The ball of the foot should be centered directly over the pedal spindle.

As proficiency increases, have student look back over left shoulder for "traffic approaching from rear."

4. Straight line control: Since the bicyclist must ride in a narrow area and must do so predictably while heavier traffic moves as close as 3-4 feet away, it is important that this be done in as straight a line as possible. Practice driving first along a straight line about 60 feet in length and then along the edge of a roadway.

5. Removing one hand (left). Communicating your intentions to other drivers is very important and the hand signal is one means of doing this. However, in order to accomplish this, the left hand must be removed from the handlebars. For this reason, the beginning driver should

practice driving the straight line with the left hand being used to signal. Remember, in actual performance of this on the street, the left hand should be returned to the handlebar just prior to executing the turn.

Have student practice while signalling and shifting.

6. Braking - It is important to know how to brake effectively without losing control, especially in an emergency situation. The greater the speed, the steeper the down grade and the less friction between tires and the pavement, the greater the stopping distance. Of course, the braking system must be in optimum working order.

See DeLong's Guide to Bicycles & Bicycling for more in-depth info.

Reaction time is the time from which the bicycle driver

a. Identifies the hazard
b. Predicts what will happen if the present course is continued
c. Decides what action needs to be taken
d. Executes that decision in some action, in this case applying the brakes. Now add that reaction distance onto the braking distance and you have the total stopping distance. At 12 mph the reaction distance is 12' and the braking distance is 8' equalling a total of 20' on a dry road. On wet road it would be 40' total distance. If wheels skid, available friction drops 25% no matter whether the bicycle has coaster brakes or caliper (hand) brakes. Skidding the tire(s) should be avoided. Remember, water on the caliper brake pads and rims decreases braking efficiency to as low as 5% of dry equipment. Dry by "dragging" brakes.

I. P. D. E.

Braking pressure (by hand or foot) can be firm and steady so as not to skid wheel or it can be several short braking times together (like pumping an auto brake).

To practice braking, paint a line 60-100 feet away from the start and have bicyclist drive at a comfortable speed and stop prior to line. Increase speed as competence increases. Wet weather braking should be practiced also, perhaps by wetting down the practice area and pads and rims.

In emergency braking situations, where brakes are applied very hard, pitchover may occur (throwing driver forward over handlebars). Two things must be remembered. If caliper brakes are used, engage both the rear brake and the front brake simultaniously.

By using the front brake alone or before the rear brake is applied, a "header" may result. Secondly, since the momentum and weight of the driver tends to continue forward - placing more weight on the front wheel, more braking power is placed on the front wheel. This results in a loss in traction on the rear wheel. To reduce the hazard of pitch-over, thrust your body back into the saddle as far as possible while braking, putting greater weight on the rear wheel, decreasing chance of skid.

7. Turning - Unlike an automobile, the bicycle is not steered by simply turning the handlebars. This in effect will cause a crash since the driver will tend to go in the original direction while the front wheel begins to assume the desired direction it is turned to. To change direction of a bicycle, the cyclist leans the bicycle to the side of the anticipated turn and may turn the handlebars

See DeLong's Guide to Bicycles & Bicycling for technical info.

slightly to also accomplish this. By banking your turn, the centrifugal force is counteracted which is throwing the driver off balance. Three things to remember when turning:

a. Brake prior to the turn and not during it.
b. Do not lean to the degree your pedal hits the pavement. Keep pedal up on the side in which turn is being made.
c. Rear wheel skids as a result of lean can usually be controlled but front wheel skids usually end up in a crash.

8. Ankling - Ankling is a way of getting more power each time you pedal. To accomplish this, lower the heel just before the pedal reaches the top part of its revolution. This enables you to push the pedal forward rather than only pushing down. As the pedal reaches the bottom of the revolution, your toes should be bent downward and the pedal pushed backward. This is done with a movement of the ankles, placing pressure on the pedals almost constantly throughout the 360 degree revolution rather than just pushing down at the middle of each revolution. Ankling may be natural to experienced bicyclists. Very useful uphill and into headwind.

Show this by using a bicycle with and without toe clips.

9. Cadence - Each individual walks at a normal cadence. Every bicyclist should also seek out a normal cadence and use gears so that it is maintained. A normal cadence for most bicyclists is 65-85 revolutions per minute of the crank. A faster or slower cadence than natural will tire the driver faster. Conditioned drivers and racers have a higher cadence.

10. Posting - This is the standing on the pedals and flexing the knees when going over bumps. The flexing of the knees absorbs the shock and improves the comfort of the driver as well as being easier on the bicycle.

11. Changing gears - To shift a derailleur bicycle, the driver must continue pedaling, but do so gently while moving the shift levers. Don't coast, pump hard, coast or back pedal. You may have to adjust slightly after shifting. On 3-speed bicycles you must stop pedaling and shift. Do not force shift lever. Shift just before pedaling begins to get difficult.

12. Posture - On bikes without drop handlebars, the driver's posture is somewhat upright. On bikes with drop handlebars, the body bends at about a 45 degree angle. This accomplishes several things:

    1. Pushes shoulders back enabling better breathing.
    2. Distributes weight better to saddle and bars.
    3. Increases airo-dynamics of body.
    4. Muscles work more efficiently.
    5. Less tiring on long rides.

D. Driving on the Range

A range area, away from traffic, has been set up for practice of the basic skills presented during this lesson. They are:

1. Mount and dismount
2. Straight line control
3. Changing direction
4. Stopping ability

The skill tests include:

1. Balance at slow speed
2. Straight line control
3. Maneuvering and weaving (serpentine)
4. Stopping ability

Optional skill tests depending on ability of group include:

1. Figure S
2. Quick change in direction

Some basic range rules include:

1. Horsing around not allowed
2. Skidding tires on exercises not allowed
3. "popping wheelies" not allowed
4. Excessive speed not allowed
5. Follow directions
6. Ask questions

Behavioral Objectives: At the end of this hour, each student should be able to:

1. Carry out a pre-drive safety check
2. Mount and dismount properly
3. Pedal properly
4. Drive in a straight line while signalling, shifting and checking traffic.
5. Brake properly
6. Turn properly
7. Shift smoothly
8. Pass the range course with reasonable proficiency depending upon degree of experience

Suggested film: Tripping on Two, 35 min., color, 1976, J-S-A
Bicycle Driver's Don't Have to Have Accidents, 14 min. Color, I-J-S

HOMEWORK ASSIGNMENT: (1) Complete unit #4 in workbook
(2) Practice skill tests
(3) Read pages 12 & 13 in Bicycle Driver's Handbook

SESSION #5

A. Identification of Hazards

Being a defensive driver and knowing what the hazards to bicyclists are and where and how to look for them is an extremely important part of bicycling. Knowing this information could save your life. Remember, the bicycle does not have the protective shell the automobile does.

Discuss what senses are used to detect hazards- list senses when particular hazards are discussed.

1. Intersections are hazardous because traffic is assuming various directions, many possibly crossing in front of you. Always check all ways prior to entering an intersection. A quick vision check will enable you to determine traffic turning left in front of you, crossing from left or right or blowing a stop sign or red light. Some vehicles may not realize you are coming as fast as you are and unintentionally pull out in front of you.

Have students list hazards at intersection and for what and where they will look.

2. Railroad Tracks - May catch wheels. Check left and right for trains, slow down to cross tracks, lift weight off of saddle and flex knees to absorb shock. Go across tracks at a right angle. Do not attempt to go across tracks crossing the road at an angle by continuing on straight. Walk across if not able to maneuver safely.

See Bicycle Drivers Handbook for illustration.

3. Open car door - Some motorists may not check the rear left blind spot prior to opening their car door into traffic. When passing parked cars, stay at least 3' from them and look for a driver about ready to exit. If a door should open, check to rear and if clear, go to left around open door or if not, shift weight far back on saddle and apply both brakes simultaneously.

Have students list what they would look for in this situation.

4. Motor vehicle exiting parking space

   a. Parallel parking - Check cars for someone sitting in car, exhaust from tail pipe, front wheels turning, etc. Some drivers may not check left rear blind spot prior to exiting parking space. If the vehicle begins to pull out, use your warning device or voice to warn of your approach. Stop if possible or check behind you and go to left if no traffic from behind prevents you from doing so.

Ask students to identify tell-tale signs of vehicle exiting parking place.

   b. Angle parking - This maneuver is especially tricky for motorists as they must back far enough out of space to be able to see over the trunk of the car in the next space. Watch for back-up lights, exhaust, etc. Use the same evasive action as in parallel parking.

   c. Watch for buses and taxis moving to and way from curb.

5. Gravel - Gravel is hazardous and may cause a bicyclist to fall. Pea gravel used for road sealing acts like little ball bearings under bicycle tires. Any gravel is especially hazardous when turning. Slow down when on gravel and "pick" your way through areas where gravel is thin. Make turns gingerly. Use rear brake only when braking.

Ask students to identify places gravel may be likely to be a hazard.

6. Sewer grates - Parallel sewer grates can trap a light weight bicycle wheel very easily and quickly and send the driver to the pavement. Always be on the watch for these and go around them. Steel plates and bridge grates are also hazardous, especially if wet.

7. Chuck holes - Some roads may have developed chuck holes and if these are filled with water, their depth is unknown. Go around if time and traffic permit. If not, grip handlebars strongly, raise up off of saddle, flex knees and go over chuck hole, check tire and rim for damage as soon as possible.

8. Glass - Perhaps one of the biggest concerns to any road user is glass. A piece of glass from a broken bottle or remains of an accident can cut through tire and tube and a blow-out or leak result. The leak or blow-out may not be immediate but happen several miles down the road after the glass has been picked up and finally worn through the tire and tube. Watch for glass and go around when traffic permits. Wipe off tires with gloved hand if glass has been on road.

9. Debris - Be on the lookout for branches, twigs, stones, cans, boards, nails, etc. which may have been dropped on the roadway. Go around when conditions permit. Most of this material tends to be thrown to the right edge of the roadway where bicyclists normally are required to travel.

10. Wet and Icy Roads - For about the first 10-20 minutes of a rain storm, the oil and grease accumulated on the highway tend to make the surface especially slippery. Slow down during these conditions if you should be driving your bicycle during the winter months. Be especially careful on hard packed snow and ice. These conditions are even more severe when the sun slightly melts the ice to form a thin water film. Turning or stopping under icy conditions is almost impossible.
    Another dangerous time is in the fall when wet leaves may cover the road near trees or where the wind has blown them. Proceed cautiously.

Have students list slippery conditions.

11. Wind - Wind blowing from the side will tend to push the bicycle towards the side in which it is blowing. If it is gusty, this could cause a bicyclist to be pushed towards traffic when wind is from the right (curb) side. Also, large trucks, buses, etc. may cause a gust of wind when passing a bicyclist. The biker should listen for large vehicles approaching from the rear and brace himself/herself for the "wind effect."

Illustrate on chalk board.

What is a race line? How does it work?

12. Breaks in pavement at road edge - heavy traffic, especially those carrying heavy loads, may break up the pavement near the road edge on narrow roads. This means you may have to drive further away from road edge than normal. Listen and watch for traffic coming from front as well as rear. If you do impede traffic, yield the right-of-way. At hill crests, stay as far right as possible and conditions permit.

13. Oncoming passing cars - An oncoming vehicle may not correctly judge distance and pull out to pass only to find out that you will be in a potential location for a head-on accident. If you perceive this situation developing, slow and go off on the shoulder to your right. Don't try to demand your rights by taking a chance and staying **out in traffic. It could be a fatal mistake.** You should also realize that there are individuals who will pass or cross the center line to scare and harass you. If you intend to press charges, you will need to know the license number and positively identify the driver.

Illustrate on chalk board.

14. Vehicles turning right - Some vehicles may pass you and immediately turn right. At any intersection, do not put yourself in the position of driving beside a vehicle in the right blind spot when in fact that driver may turn right and cut you off between the vehicle and curb. Stay behind vehicles in this situation and watch the right rear directional signal or the front wheel for a turning movement.

Illustrate on chalk board.

15. Vehicle turning left - You may be planning on going straight through an intersection but the motor vehicle approaching from your front may be planning a left turn. If you spot his signal, try to make eye contact. If that is not possible, adjust your speed to traffic conditions to either clear the intersection while traffic going in your direction protects you or slow and let the vehicle turn. One important point to remember is that the motor vehicle driver is looking for potential hazards to him or her vehicle and may not be looking for a bicycle at all. Make eye contact with driver of motor vehicle.

Illustrate on chalk board.

16. Dogs - Dogs have long presented a problem to bikers, especially those enjoying the rural roads where dogs are allowed to run. The dog may do several things: 1)Run along side of you but not leave the property; 2) only run out and bark at you; 3) try to snap at your legs, feet or wheels; 4) dart across in front of you; 5) jump up on you; 6) run into your bicycle

There are several things you can do according to the attack situation, traffic conditions and your physical condition.

a. Yell at the dog - say "No" or "stay" - the dog may return to the yard.

b. If yelling does not stop the dog, use some dog repellant to stop it. Aim at the dog's nose. Even water from your water bottle may stop the dog.

c. Since the dog is chasing your revolving wheels and pedals, stop and get off your bike, keeping it between you and the dog. Call for the owner or walk away from the dog, using the bike as a screen.

d. If you are physically fit and the dog doesn't have the angle on you, try to outdistance the dog before it gets to you.

e. Under no circumstances should you attempt to kick at the dog (It may just grab your leg) or try to hit the dog with a pump. Both of these methods will only aggravate the dog.

Have students list other hazards- such as rumble strips sharp curbs, night driving, rain, etc.

17. Pedestrians may suddenly leave the curb either at crosswalks or mid block. Yield to pedestrians in crosswalks. Watch for children running into road from behind trees, lawn, or between parked cars or driveways.

B. Driving on the Street

This is perhaps the most important segment of the entire course. More time may be taken in the next 3 sessions as time permits.

Students should be taken out onto the street and experience actual street situations. Care should be taken to choose low volume residential streets at first and later going on low volume commercial streets. As students develop experience, higher traveled roads can be used. At some time rural roads should be introduced and used. However, major emphasis should be in urbanized areas. Session #7 will allow greater time for actually driving on the road.

Behavioral Objectives: At the end of this hour, each student should be able to:

1. List common hazards to bicycling
2. Identify common hazards to bicycling
3. Examine techniques for identifying hazards
4. Explain techniques for avoiding hazards
5. Identify and avoid hazards on street

Homework Assignment: (1) complete unit #5 in the workbook.
(2) talk to motorists and bicyclists about conflict situations and submit a written report of your findings to the instructor at the next class.
(3) Read pages 20-21 in Bicycle Driver's Handbook.

SESSION #6

A. Using the bicycle inspection form, go over the bicycle one item at a time. Explain techniques needed to check such things as wheel wobble, loose hub bearings, loose head set or crank hanger bearings, brake adjustment, etc.

Ask a bicycle mechanic to be guest speaker and cover the inspection and the maintenance presentation.

B. Bicycle Maintenance

1. The following list provides a timetable of maintenance:

a. Daily - check gears, brakes, and all accessories, etc. As you ride, listen for odd noises.

b. Weekly - Check tire pressure

Have students make up a maintenance schedule chart.

c. Monthly

i. Lubricate front hub. Use a few drops of light oil if an oil fitting is provided.

ii. Lubricate the rear hub. Use a few drops of light oil.

iii. Remove the chain. Clean it in solvent, soak it in lightweight oil, drain it, remove the excess, and then reinstall it. Oil after driving in rain.

iv. Apply a few drops of lightweight oil to the brake and shift cables.

v. Apply lightweight oil to all pivot points of the caliper brakes.

vi. Apply lightweight oil to the moving parts and pivot points of the rear derailleur.

vii. Apply lightweight oil to the pivot points of the front derailleur.

viii. American-type pedals-apply mediumweight oil to each end. European rattrap pedals require greasing semi-annually.

ix. Apply lightweight oil to the freewheel mechanism.

x. Clean the saddle with warm soap and water.

d. Semiannual

i. Overhaul the front wheel hub.

ii. Overhaul the pedals.

iii. Overhaul the headset.

iv. Overhaul the rear derailleur.

v. Overhaul the front derailleur.

e. Annual

i. Overhaul the rear hub. This task applies to single and multispeed rear hubs.
ii. Overhaul the hanger set.
iii. Overhaul the freewheel cluster

2. Tools you may need include:

Have students list tools needed for bicycle maintenance.

a. Set of open end or box wrenches (metric or American to fit your bike)
b. Pliers - regular and needlenose
c. Screw drivers - one small, one medium, one Phillips
d. Adjustable wrench
e. All purpose bicycle wrench
f. Wire clipper
g. Tire irons
h. Spoke wrench
i. Chain tool
j. Freewheel remover
k. Allen wrenches
l. Third hand
m. Tire guage
n. Tire repair kit
o. Tire pump (hand)
p. Hammer
q. File
r. Cone wrenches
s. Rags
t. Containers for parts (i.e. empty TV dinner trays,etc.)

3. Materials you will need for cleaning & lubricating include:

a. Kerosene (in wide mouthed container)
b. Light machine oil
c. Spray petroleum distillate
d. Good bearing grease

4. **In-Class Maintenance**

The following should be done in class to show students exactly how such activities are done correctly. Hands-on experience by students should be used whenever possible

Have students do as many of these items as possible.

a. Lubricate rear hub
b. Remove chain, clean & lubricate & reinstall
c. Adjust brakes
d. Adjust derailleur or 3-speed shifter
e. Lubricate cables
f. Lubricate derailleur(s)
g. Lubricate pedals
h. Overhaul front (or rear) hub
i. Adjust spokes- true wheels.
j. Repair a tire & reinstall

Several books explain in depth how to do these - see appendix

5. Cleaning Bicycle:

Periodically or when dirty, the bicycle should be wiped off with a damp rag. Do not spray water into hubs, bottom bracket, head set, or rear freewheel. A mild soap may be used. Use a bicycle wax as compared to an auto wax if possible.

Although this is not a complete course in maintenance and repair the students will be able to observe how it is done correctly. Students should be advised to take their bicycles to a bicycle shop for repairs they do not feel they can handle.

Behavioral Objectives: At the end of this hour, each student should be able to:

1. List maintenance time schedules
2. List tools needed for maintenance
3. Lubricate bicycle parts requiring lubrication
4. Adjust derailleurs & brakes
5. Adjust spokes , replace broken spokes , and true wheel.
6. Repair tire & reinstall

Films: Several Bicycle Manufacturers Assn. films are available regarding maintenance- See appendix.

Homework: Assignment (1) Complete unit #6 in the workbook (2) Inspect and maintain bicycle as explained in class.

SESSION #7

A. Bikeways - There are three types of bikeways

1. Bike path - completely separate from roadway. May go through a park or be parallel and near the existing road. Offers ultimate protection.

2. Bike lane - a section of the roadway set aside for bikes only or it may be shared by buses or right turning vehicles. Offers some protection.

3. Bike routes - a street or highway which has been surveyed for use by bicyclists and signed to warn other vehicles that bicycles may be present. Offers little to no protection to the bicyclist.

Another type of bikeway that falls more into the path category is the bicycle trail which in Wisconsin would be like the Sugar River Trail - or the Elroy-Sparta Trail where abandoned railroad beds are prepared and made useable for bicycles.

Review rules of road from pages 10&11 of this guide, as pertaining to bike lanes and bike ways.

B. First Aid - In case some accident resulting in injury should occur, it is important to know what to do. Since most injuries involve hands, arms, feet and legs, information will address primarily these areas.

1. Scratches/scrapes - Keep covered if possible. When materials are available, wash wound with soap and water, rinse thoroughly, cover with petroleum jelly or apply antiseptic and put band aid or bandage over it. Change bandage daily.

2. Cuts - If bleeding badly, apply pressure directly to the wound with a handkerchief, cloth, clothing or bare hand. Keep pressure on until bleeding stops. If it stops quickly, cover the wound. When possible, wash with soap and water, rinse clean and apply antiseptic. Apply dressing. See doctor if bleeding persists or if very deep or long.

3. Puncture wound - Do not attempt to withdraw object if it is not necessary, especially if it has a jagged end or is barbed. See a doctor. Small splinters should be removed if in hand or foot where it might impair driving.

4. Bruises - Use wet compresses or ice bag.

5. Heat stroke - Symptoms: Skin flushed, very dry and very hot, body temperature very hot. Very critical
Place victim in very cold water bath or wrap in wet towels and clothing to cool body. Give ice water. Place in a semi-reclining position. Get to hospital as soon as possible.

6. Heat exhaustion - Symptoms: Fatigue, clammy perspiration, whiteness of skin, weak pulse and shallow breathing.
   Remove patient to cool place and place in reclining position. Loosen or remove clothing. May use spirits of ammonia if available. Raise legs. Give victim a salt tablet.

7. Dog bite - Try to confine dog, keep an eye on it or at least be sure of identity. Go to doctor as soon as possible. Report to local officials.

8. Object in eye - Pull top eyelash down and over lower eyelash. This should make eyes tear so object is removed. Wash out with water or eyewash. Do not rub - go to doctor as soon as possible if you cannot get it out.

   Advise wearing glasses. Bugs at night are especially bad in mid-late Summer.

9. Broken arm or leg - Do not move or put weight on leg or arm. Keep arm/leg immobilized. Get to a doctor as soon as possible.

10. Head injuries - Do not move patient. Keep patient lying down and warm. Call a doctor immediately. Do not take chances on this type of injury.

    Advise to wear a helmet!

11. First aid kit - minimum kit consists of:

1. Mild soap	6. Salt tablets
2. Antiseptic	7. Tape
3. Band aids	8. Ace bandage
4. Large bandages	9. Tweezer
5. Clean cloth	10. Safety pins

C. On Street Driving - Go out onto street again with students. Make use of any bikeways available. Try to take students (depending on age) through various conditions they will meet in actual bicycle driving conditions. Review hazard identification, accident avoidance procedures, driving under other than ideal conditions. If time and weather permit, do some driving after hours of darkness and during wet weather.

Behavioral Objectives: At the end of this hour, student will be able to:

1. Explain various types of bikeways
2. Administer basic first aid
3. Assemble a first aid kit

Homework assignment: 1) complete unit #7 in the workbook.
2) study/practice for written/practical tests.

SESSION #8

1. Answer any questions students have
2. Administer written test
3. Administer driving test (best if on road and not a range test.)
4. Award certificates and patches to those passing.

FINAL EXAM

A. Multiple choice - Circle the best answer (15 points)

1. The hand signal for a right turn is:
   a. the left arm extended downward
   b. the right arm extended outward
   c. the left arm extended out and bent up at elbow
   d. none of the above

2. Bicycle drivers must drive:
   a. on the left facing traffic
   b. as near as practicable to the right edge of the roadway
   c. on the right side with traffic
   d. b and c above

3. Required equipment for bycycles include:
   a. chain guard, brakes, light, helmet
   b. helmet, chain guard, fenders, reflector
   c. warning device, helmet, lights, brakes
   d. brakes, light, reflector and warning device

4. Bicyclists passing a standing vehicle or one proceeding in the same direction must allow a minimum of _____ feet between the bicycle and the other vehicle.
   a. 3
   b. 5
   c. 10
   d. 2

5. Every person driving a bicycle on a bicycle way shall:
   a. give an audible signal when passing a bicyclist or pedestrian
   b. drive on the right side of two-way bicycle ways
   c. obey each traffic signal or sign facing parallel & adjacent roadways
   d. all of the above

6. When fitting the bicycle to the driver, the driver must be able to:
   a. straddle the top tube
   b. have a slight bend at the knee when peddle in lowest position
   c. reach handle bars comfortably without stretching
   d. all of the above

7. The correct procedure to start moving is:
   a. straddle top tube with foot in 2 o'clock position
   b. check to rear for traffic
   c. push down on pedal & lift body up and onto saddle
   d. all of the above

8. Wet caliper brakes can have efficiency reduced to as low as _____ of dry equipment.
   a. 5%
   b. 10%
   c. 15%
   d. 25%

9. In order to stop a bicycle without risking pitch over, the driver's weight should be placed:
   a. as far forward as possible
   b. as far to rear as possible
   c. to one side or the other
   d. none of the above

10. Things to remember in cornering include:
   a. brake prior to turn-not during it
   b. do not lean to degree pedal hits road
   c. watch for slippery or gravel conditions
   d. all of the above

11. Things to do when confronted with a dog include:
   a. yell "no" or "stay" at the dog
   b. stop and get off bicycle
   c. hit dog with pump or kick at dog's nose
   d. a and b of the above

12. The correct first aid for heat stroke is:
   a. Place victim in very cold bath or wrap in wet towels
   b. keep victim moving
   c. get to hospital as soon as possible
   d. a and c of the above

13. Ways of safe guarding a bicycle include:
   a. keep bicycle indoors
   b. place chain through both wheels and frame
   c. register and license your bicycle
   d. all of the above

14. The safest route includes:
   a. bike paths, lanes, and routes
   b. high volumn streets
   c. state and federal highways
   d. a and b of the above

15. Materials needed for bicycle maintenance include:
   a. pliers, screw driver, adjustable wrench and oil
   b. hammer, gasoline, pliers, and screw driver
   c. spoke wrench, rags, kerosene, light oil
   d. a and c of the above

B. True or False - Circle T if true.....Circle F if false. (15 points)

T F 1. Bicycles may go on freeways and expressways when official signs have been erected permiting such use.

T F 2. The hand signal for turns must be given continuously for not less than the last 50 feet traveled prior to turning.

T F 3. Play vehicles such as coaster wagons, skate boards or sleds, may be used on the roadway.

T F 4. No bicycle shall be used to carry more persons at one time than the number for which it is designed and equipped.

T F 5. Any person driving a bicycle may attach himself or his bicycle to another vehicle upon a roadway.

T F 6. Whenever a usable path for bicycles has been provided adjacent to the roadway, bicycle drivers must use such path.

T F 7. Unless 2-way traffic is authorized, every person operating a bicycle upon a bicycle lane shall drive in the same direction in which vehicular traffic on the lane nearest the lane is traveling.

T F 8. Every person may leave a bicycle lane at any point by dismounting from the bicycle and walking it out of the lane.

T F 9. A red rear tail light may be used instead of a red rear reflector.

T F 10. It is best to wear dark clothing at night and bright clothing in the day.

T F 11. It is best for a beginning driver to practice in heavy traffic.

T F 12. The arch of the foot should be centered on the pedal.

T F 13. Braking is improved when the wheel is skidded.

T F 14. Brakes, lights, reflectors and warning devices need to be checked no more than once each month.

T F 15. If a bicyclist falls and injures his/her head keep patient lying down, warm, and do not move.

C. List 10 hazards to bicyclists in the left column. In the center column identify where you would normally look/listen for the hazard and in the far right column what evasive action you would take. (10 points)

	HAZARD	LOCATION	EVASIVE MANEUVER
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

D. List 10 maintenance jobs needed to be performed on bicycles in the left column, list the frequency each job should be performed in the center column, and list a tool needed to perform the job in the right column.

Maintenance Jobs	Frequency	Tool Required
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

BICYCLE DRIVER TRAINING COURSE

FINAL EXAM

ANSWER SHEET

A.		B.	
	1-C		1-F
	2-D		2-T
	3-D		3-F
	4-A		4-T
	5-D		5-F
	6-D		6-T
	7-D		7-T
	8-A		8-T
	9-B		9-F
	10-D		10-F
	11-D		11-F
	12-D		12-F
	13-D		13-F
	14-A		14-F
	15-D		15-T

C. Instructor to review and use own background and experience to correct answers.

D. Same as C, instructor to review and use own background and experience to correct answers.

14

WorkBook Answers

Unit #1

Appendix A

A. Match the definition on the right with the word on the left.

d 1. Bicycle Way

a 2. Bicycle

b 3. Bicycle Lane

C 4. Bicycle Route

a. Every device propelled by the feet acting upon pedals and having wheels any 2 of which are not less than 14 inches in diameter.

b. That portion of a roadway set aside by the governing body of any city, town, village or county for the exclusive use of bicycles or other modes of travel where permitted under s. 349.23 (2) (a), and so designated by appropriate signs and markings.

c. Means any bicycle lane, bicycle way or highway which has been duly designated by the governing body of any city, town, village or county and which is identified by appropriate signs and markings.

d. Means any path or sidewalk or portion thereof designated for the use of bicycles by the governing body of any city, town, village or county.

B. List 6 uses of bicycles:

Recreation	Business
Touring	Physical Fitness
Commuting	Racing

C. List 6 users of bicycles:

Adults	Women
Children	Young
Men	Old

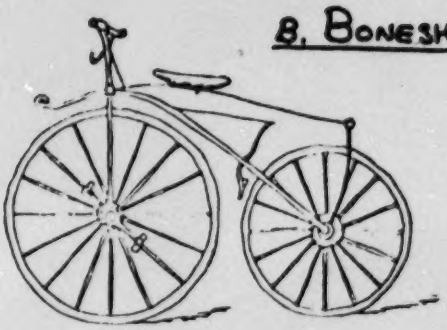
D. Match the Phrase on the right with the word on the left.

e	1. Bottom Bracket Hanger	a.	Foot activated rear brakes
h	2. Caliper brakes	b.	Group of gears on rear hub
l	3. Chain wheel	c.	Driver must be able to straddle
a	4. Coaster brakes	d.	Holds wheel bearings and axle
i	5. Derailleur	e.	Where seat tube, down tube and chain stays meet
b	6. Freewheel cluster	f.	Required for night driving.
j	7. Front fork	g.	Also known as "sew-ups"
d	8. Hub	h.	Hand brakes
f	9. Reflector	i.	Mechanism to move chain from one gear to another.
c	10. Top tube	j.	Where front wheel attaches to bicycle
g	11. Tubular tires	k.	Where air is put into tire
k	12. Valve	l.	Large gear wheel on right crank

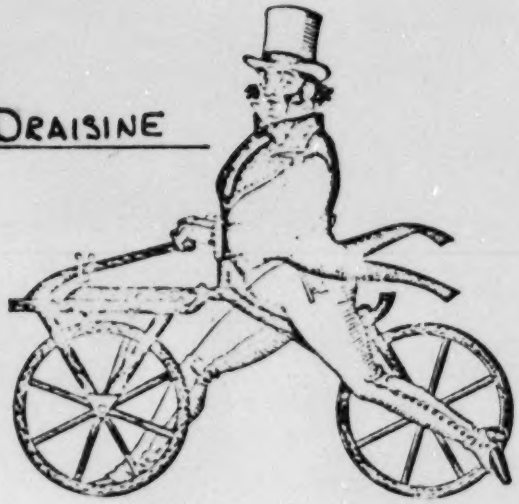
E. Match the names listed below with the correct bicycle.

1. Safety
2. Boneshaker
3. Draisine
4. Hobbyhorse
5. Ordinary

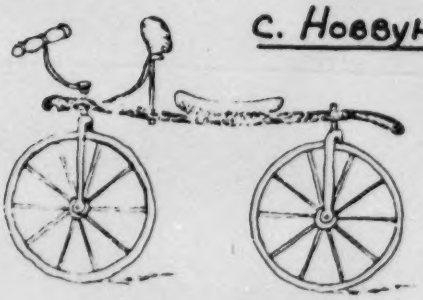
B. BONESHAKER



A. DRAISINE



C. HOBBYHORSE



D. ORDINARY

E. SAFETY

Unit #2

A. Fill in the missing word in each sentence below.

1. Bicycles are not allowed on EXPRESSWAYS and freeways.
2. Always keep at least one hand on the HANDLEBARS.
3. Only ONE on a bike unless it is designed and equipped for more.
4. Never attach your bicycle or yourself to another VEHICLE.
5. Always drive as NEAR AS PRACTICABLE to the unobstructed edge of the roadway.
6. Always drive WITH traffic flow.
7. Warn others with a BELL, HORN or voice.
8. When driving with others and there is a center line, drive SINGLE FILE.
9. Yield to pedestrians on SIDEWALKS and in CROSSWALKS.
10. Use LIGHT and REFLECTOR if driving at night.

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B. List 4 reasons why we have laws.

1. UNIFORMITY

2. AVOID CONFLICTS

3. SMOOTH TRAFFIC FLOW

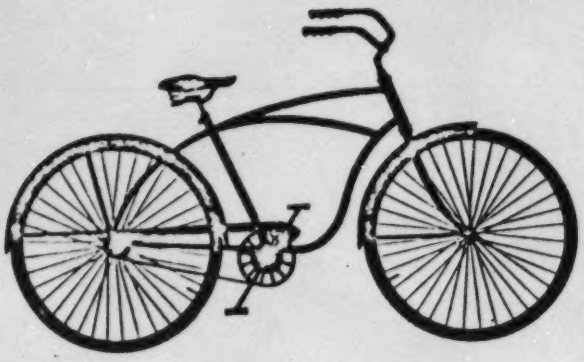
4. DOCUMENTS RIGHTS & RESPONSIBILITIES

C. Explain how bicycle laws affect you as a bicycle driver.

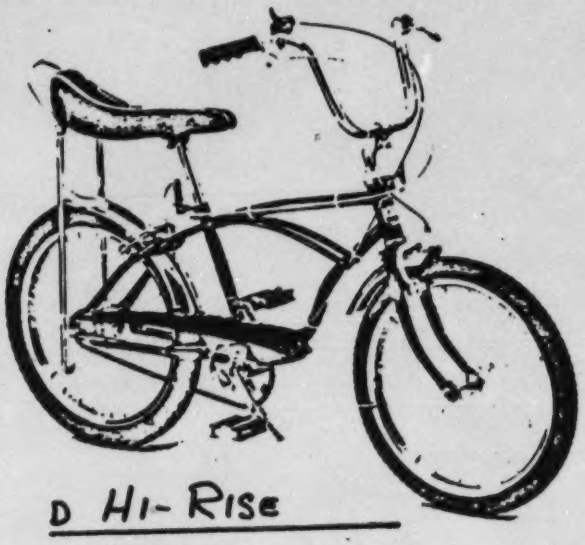
(VARIOUS WAYS OF AVOIDING CONFLICTS)

A. Match the names listed below with the correct bicycle.

Mixte
Folding
Tandem
Regular
3 speed
Hi-rise
10 speed

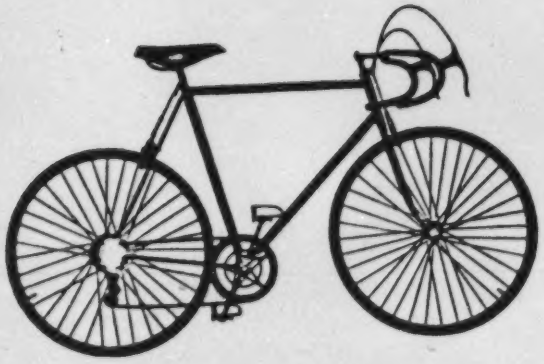


A. REGULAR

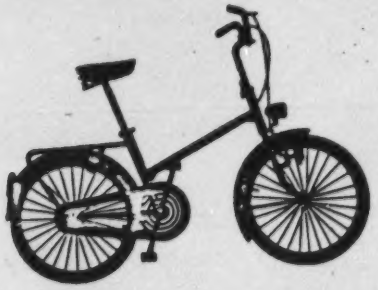


D HI-RISE

E MIXTE

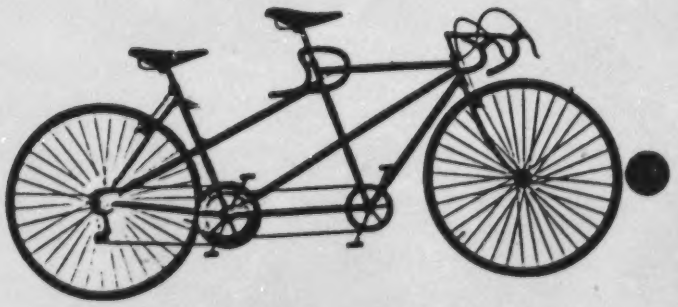


B. 10 SPEED



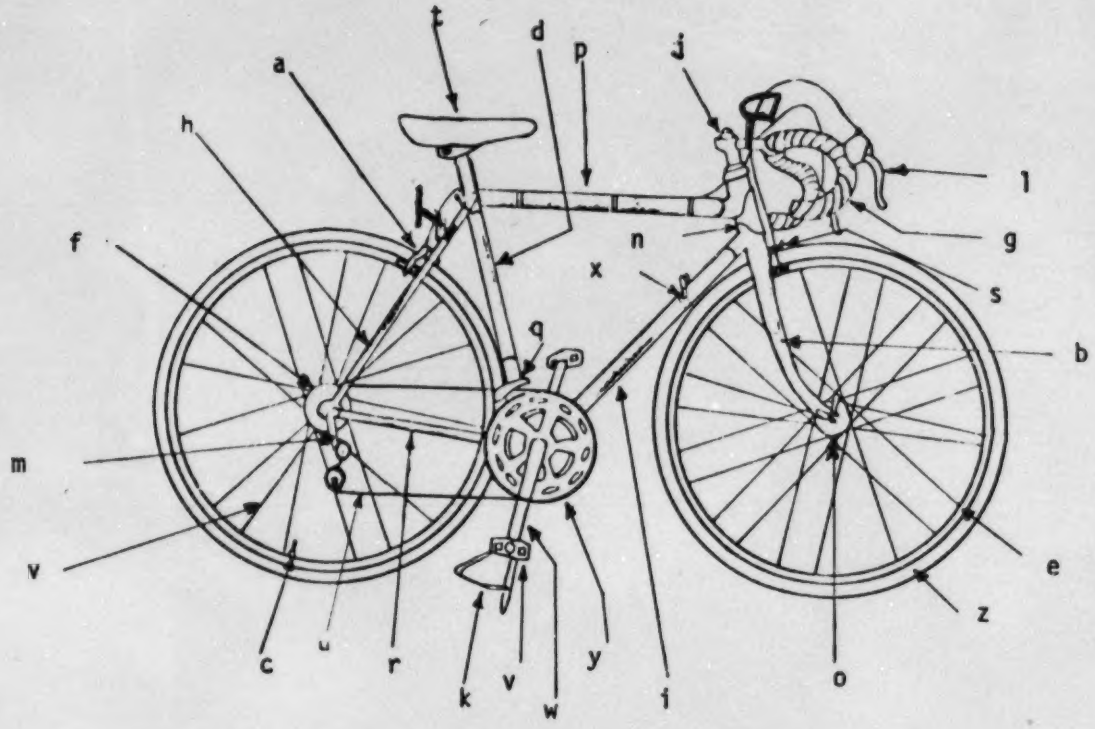
F. FOLDING

C. 3 SPEED



G. TANDEM

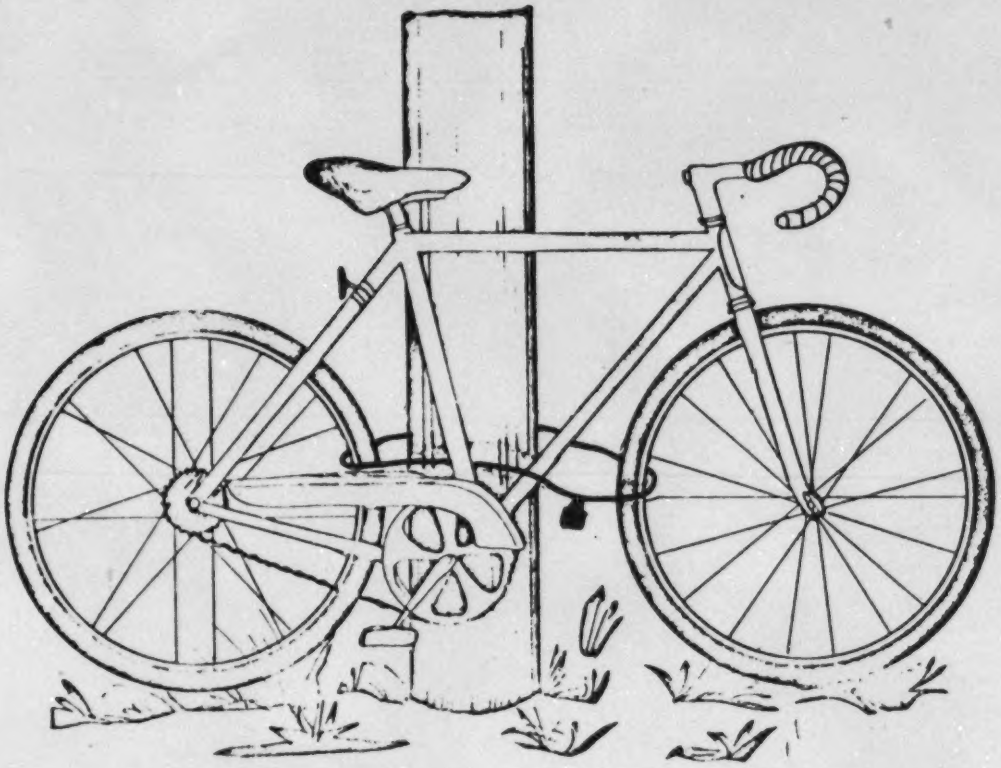
B. Identify the parts of a bicycle as shown below.
Write name of part at the end of each arrow.



t	1.	Saddle	o	14.	Hub
v	2.	Spoke	f	15.	Free wheel
z	3.	Tire	q	16.	Front changer
g	4.	Drop bars	i	17.	Down tube
p	5.	Top tube	l	18.	Hand brake lever
s	6.	Front brake	h	19.	Seat stay
m	7.	Rear changer	a	20.	Rear brake
b	8.	Fork	r	21.	Chain stay
y	9.	Chain wheel	j	22.	Stem
n	10.	Head tube	w	23.	Crank
k	11.	Pedal & toe clip	x	24.	Gear shift lever
e	12.	Rim	c	25.	Tire valve
d	13.	Seat tube	u	26.	Chain

C. Draw the equipment that is required by state law on the drawing of a bicycle above.

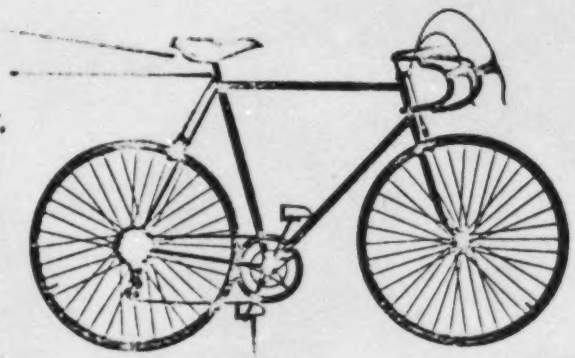
D. On the Bicycle below, draw how to properly lock your bicycle.



E. Show on the drawing below where you would adjust and fit a bicycle to the driver and tell how you would do so.

ADJUST SADDLE FORWARD OR BACKWARD & TILT.

ADJUST SADDLE UP OR DOWN IN SEAT TUBE.



- ADJUST STEM UP OR DOWN IN HEAD TUBE. LONGER OR SHORTER STEM MAY BE PURCHASED.

ON SPORT BIKES LONGER OR SHORTER CRANKS MAY BE USED.

UNIT # 4

A. List 3 questions a bicycle driver should ask him/herself about being ready for a bicycle ride.

1. Do I Know The Rules of The Road
2. Am I Phyrically Fit
3. Am I Dressed Properly

B. List three things that should be considered in planning a safe route.

1. Use of Bike Paths, Lanes & Routes.
2. Use Low Volume Streets, Roads & Highways.
3. Use Well Maintained Streets

C. On a separate sheet, plan and draw a map showing safe bicycle route to (1) school or work (2) the store (3) a recreational activity.

D. List in the areas provided below what types of things you would inspect for during a routine bicycle inspection.

1. Frame
   - BROKEN
   - BENT

2. Fork
   - BEARINGS LOOSE
   - BENT

3. Wheels
   - SPOKES LOOSE/MISSING
   - WHEEL WOBBLES
   - BEARINGS LOOSE/TIGHT
   - RIM BENT

4. Tires
   - IMPROPER INFLATION
   - WORN TREAD
   - BULGE/DEFECT

5. Brakes
   - INEFFECTIVE
   - INOPERABLE

6. Reflectors
   - MISSING
   - BROKEN

7. Handle Bars
   - TOO HIGH/LOW
   - TOO LOOSE/TIGHT
   - GRIPS MISSING/NOT CEMENTED
   - DROP BARS NOT TAPED/PLUGGED
   - NOT 2½" OF POST IN TUBE

8. Seat
   - LOOSE
   - TOO HIGH/LOW
   - NOT 2½" OF POST IN TUBE

9. Pedals
   - TOO LOOSE/TIGHT
   - WORN/BENT

10. Crank and chainwheel
    - TOO LOOSE/TIGHT
    - EXCESSIVE DIRT

11. Chain
    - TOO TIGHT/LOOSE
    - RUSTY
    - IMPROPER LUBRICATION

12. Headlight
    - INOPERABLE/MISSING

13. Shifters

/INOPERABLE

NOT ADJUSTED

14. Warning Device

MISSING/INOPERABLE

15. Fasteners

LOOSE

MISSING

SHARP EDGES

A. List 10 common hazards to bicycling.

1. MOTOR VEHICLE TURNING LEFT.
2. MOTOR VEHICLE TURNING RIGHT.
3. OPEN CAR DOOR.
4. SEWER GRATES.
5. GRAVEL.
6. RAILROAD TRACKS.
7. HOLES.
8. DEBRIS.
9. DOGS.
10. PEDESTRIANS.

B. Explain how you would identify each hazard listed above i.e. where would you look for hazard etc.

1. CHECK ONCOMING LANE AT INTERSECTION/DRIVEWAY.
2. CHECK VEHICLE PASSING ON LEFT OR IN FRONT.
3. CHECK PARKED VEHICLES.
4. CHECK GUTTER AREA.
5. CHECK ROADWAY NEAR SHOULDER & AT INTERSECTIONS.
6. CHECK ROADWAY AHEAD FOR SIGNS, SIGNALS & TRACKS.
7. CHECK ROAD SURFACE AHEAD.
8. CHECK RIGHT PORTION OF LANE WHERE DEBRIS COLLECTS.
9. CHECK YARDS AHEAD.
10. CHECK NEAR PARKED CARS & AT CROSSWALKS.

C. List what evasive action you would take if confronted with the hazards in the lists on the previous page.

1. MAKE EYE CONTACT - ALLOW TO MAKE TURN, ADJUST SPEED
2. MAKE EYE CONTACT - STAY OUT OF BLIND SPOT, ADJUST SPEED
3. CHECK TO REAR & GO AROUND IF CLEAR - STOP IF NECESSARY
4. CHECK TO REAR & GO AROUND IF CLEAR
5. SLOW, USE REAR BRAKE ONLY - GO AROUND IF POSSIBLE
6. SLOW, GO ACROSS AT 90° ANGLE, CHECK TO REAR
7. SLOW, GO AROUND IF POSSIBLE, STAND ON PEDALS TO ABSORB SHOCK
8. GO AROUND WHEN CLEAR
9. YELL, USE REPELLANT, KEEP BIKE BETWEEN YOU & DOG.
10. YIELD RIGHT OF WAY, STOP WHEN NECESSARY, SOUND WARNING.

Unit #6

A. Match the tools listed on the left with the uses on the right.

h	1. Cone wrench	a.	tighten nuts and bolts
b	2. Screw driver	b.	Adjusting rear derailleur
i	3. Allen wrench	c.	removing rear gear cluster
j	4. Chain break	d.	Truing wheel
g	5. Pliers	e.	Removing crank axle
d	6. Spoke wrench	f.	Patching inner tubes
k	7. Punch	g.	Pulling cable tight
l	8. 3rd hand	h.	Adjust hub bearings
e	9. Spanner	i.	Tightening recessed stem bolt
a	10. Open end or box wrench	j.	Removing chain
f	11. Tire irons	k.	Removing crank wedge pins
c	12. Freewheel remover	l.	Adjusting caliper brakes

B. Listed below are bicycle maintenance jobs. Note in front of each item at what time interval the maintenance should be performed using the following time periods.

a. Before each ride
b. Weekly
c. monthly
d. Semi-annually
e. Annually

C 1. Tighten fasteners

C 2. Freewheel lubrication

b 3. Tire tread, sidewall inspection, and pressure

C 4. Derailleur lubrication

C 5. Chain lubrication

C 6. Wheel allignment

a 7. Light(s) inspection

C 8. Cable lubrication

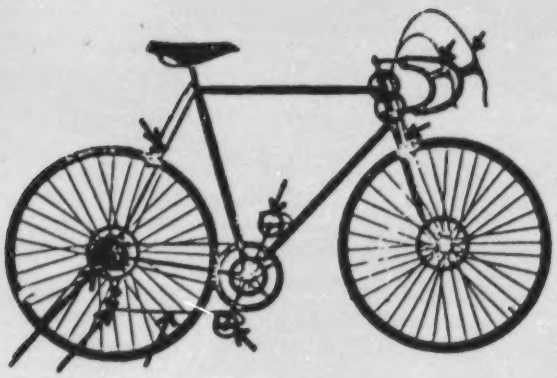
C 9. Brake lubrication

d 10. Hub bearings overhaul

e 11. Crank bearings overhaul

a 12. Reflector(s) inspection

C. On the drawing below, circle those parts requiring greasing and draw an arrow to those parts requiring oiling.



NOTE: ON SOME BICYCLES HUBS ARE GREASED & ON OTHERS OILED. THIS IS ALSO TRUE OF PEDALS.

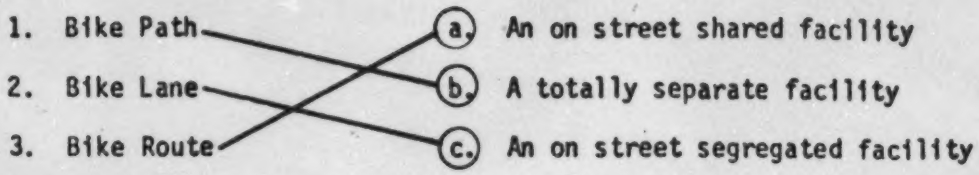
A. List below those items you would include in a basic bicycling first aid kit.

1. MILD SOAP
2. ANTICEPTIC
3. BANDAGES
4. CLEAN CLOTH
5. SAFETY PINS
6. TAPE

B. Match the treatment on the right with the injury on the left by writing the correct letter in the blank.

d	1. Bug in eye	a.	Apply anticeptic and cover
e	2. Heat exhaustion	b.	Keep patient lying down and warm
a	3. Scratch to elbow	c.	Apply direct pressure
g	4. Heat stroke	d.	Wash with water
f	5. Fractured arm	e.	Have patient lie down and loosen clothing and take salt.
b	6. Head injury	f.	Immobilize and splint
c	7. Deep cut on leg	g.	Place patient in cold bath
h	8. Dog bite	h.	wash and alert police

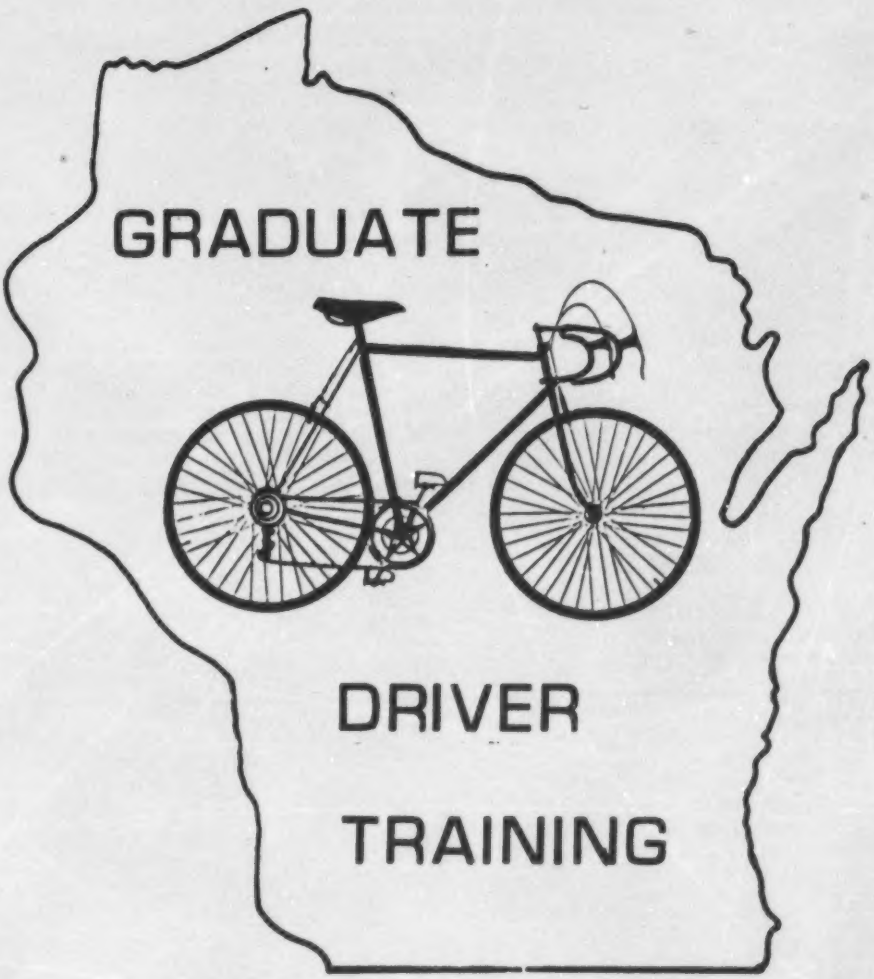
C. Match the definition at the right with the word on the left, by drawing lines.


1. Bike Path
2. Bike Lane
3. Bike Route
a. An on street shared facility
b. A totally separate facility
c. An on street segregated facility

D. List the strengths and weaknesses of each facility listed above.

	Strengths	Weaknesses
1. Path	SEPERATE FROM TRAFFIC	POOR MAINT. - SHARED WITH PEDS.
2. Lane	SOMEWHAT PROTECTED	POOR MAINT. - SOMETIMES SHARED
3. Route	SURVEYED & SIGNED	NO PROTECTION -

(PATCH)



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Put Yourself in the Student's Shoes

A. The student is the "customer". If he doesn't buy it, you have not succeeded.

B. Recognize these barriers in reaching students:

1. They accept as fact what experience has taught them. When the principles you teach are different, you have to "unlearn" them.

2. It is tough to apply a principle learned in one situation to another situation.

3. They have not done the work you did to prepare the material. Frequently your experience is much greater. Never talk over their heads. Don't preach a point directly, lead up to it step by step until you get their acceptance.

4. They have different backgrounds. Each student is an individual and very few things are common to all of them.

Know What Kind Of Learning You Expect

A. The only test of good instruction is "what did the student learn".

B. Kinds of Learning:

1. Supervised practice. To learn new skills and habits, show the new method. Have the students practice in order to get out of old habits and gain confidence in the new one.

2. Memorization. Learning facts and figures fades with time and is time consuming. Go easy on this method.

3. Problem solving. Organize facts and come up with new solutions to problems. Organize habits and skills and apply to new situations. Improve old ways and discover new ones.

Involve Students in Many Ways

A. Trial and error. The student tries and tests and tests and tries again, etc. The student reasons that there are several ways to solve the problem. Like a do-it-yourself trying to fix a bicycle for the first time. If successful, that problem is easier in the future. Mistakes are valuable teachers too. More is learned if the student doesn't stumble onto the correct answer the first time. Your guidance may help to prevent discouragement.

B. Insight (an advanced stage of trial and error or mental trial and error). The student applies previous knowledge in similar situations. You do three things:

1. Create student awareness of the problem.

2. Stimulate ways knowledge of all the students can be used to solve the problem.

3. Give help when necessary but don't rob them of the thinking process. Keep in mind there may be several ways the job can be done and yours may not be the only one. Ask for other possible solutions.

TIP SHEET FOR THE VOLUNTEER INSTRUCTOR

1. Be more concerned with student achievement than the amount of ground you cover.

2. Explain to the students what you expect of them in a way that they can understand.

3. Tell them when they have done well.

4. Show them how to correct their mistakes. Help them to reason toward a better way without giving pat solutions or answers.

5. Use the collective experience of the group as a resource and add it to your own prepared material. Bring out this experience in the discussion and use it in future classes.

6. Organize your materials so that you know:

   A. What you expect to accomplish.
   B. What you need to cover.
   C. How you are going to do it.

7. Know different techniques for maintaining student interest through change of pace. Use techniques to suit the topic and student needs to achieve what you expect to accomplish. Borrow good ideas and adapt them to your own teaching style or personal touch.

8. Lecture without expertizing. With smaller groups a simple conversational approach is best.

9. Bolster your lecture with good visual aids.

10. Practice if possible, with the aid of a tape recorder.

11. Know the magic of a good story or illustration in making a point; humor in good taste is an asset. Avoid having anyone be the butt of a joke.

12. Avoid annoying mannerisms that distract the class.

13. Avoid being an expert in all facets of the subject. Avoid losing the confidence of the class. Saying "I don't know" or "I'll find out" is better than bluffing.

TEACHING TIPS FOR THE VOLUNTEER INSTRUCTOR

Introduction

Great teachers may be born but good teachers are made. The purpose of this section is to help you be a good teacher. Whether teaching is your career or a once-in-a-while shot, the main satisfaction of teaching lies in helping others become more effective.

If the teacher is effective, the student is motivated to learn and comes back for more; if not, the student doesn't learn and doesn't come back. The quality of instruction is measured by student acceptance.

This emphasis on quality can only be maintained by constant attention to ways of improving instruction and reexamination of your objectives and "tools" used to meet the objectives.

Your job then, is to bring out in people the abilities that lie within them so they become safer and more sensible bicyclists.

Instructor Influences

In all kinds of learning, the instructor influences it in three ways:

A. Senses he uses. Use as many of the human senses as possible: taste, smell, touch, sight and sound. Whenever possible, avoid relying only on sound to get your teaching across. Many students sleep to the sound of the instructor's voice.

B. Conditions. Prepare, involve and motivate the student. Preparation requires proper environment. Proper room, seating conditions, temperature, freedom from interruptions or distractions.

Involvement requires physical participation in the instructor. After a meal, more active involvement is needed.

Use suspenseful pause after asking a question, so all are under pressure to react. Asking one student invites a short trip to dreamland for all the rest. Don't chain yourself to one spot, the whole room is your lecture platform. Ask the class for applications instead of giving your own. The more unsure you are of your audience, the more you need physical involvement and change of pace in your presentation.

Motivation occurs when something to be learned is accompanied by a student need. Don't be afraid to say "very good", "right on", "you hit the nail on the head", etc.

C. Arranging materials. Present material as a whole unit. Don't emphasize piecemeal learning. Use short learning periods with frequent rest periods. An old proverb states "the mind can absorb only as much as the back end can endure." Give guidance early when students need help. Too much help slows learning. Let the students be heard, learning will be more efficient.

Preparing Your Presentation

Instruction, like any other organized effort, begins with a purpose or objective. Unfortunately, many instructors plan their presentation only to "cover ground". The objectives are based on the student's needs and capacity.

If your purpose is to change behavior (developing safe driving skills, for example), try to spend most of your time giving practice.

If you wish to give a great deal of information in a short time, emphasize the lecture approach.

To emphasize principles, cut down on the amount of material you give and allow more time for discussion.

The Lesson Plan: Your Objectives

This is the first step in preparing your presentation. Write out your learning objectives in the lesson plan and look them over from time to time as you prepare the outline.

Developing a Working Outline

A. This is the next step in your presentation. Make it as brief or complete as you need it. A well-planned outline allows students to follow easily, understand what you have to say, and remember it later. Decide generally what you want covered, then fill in the details. It is better to cover a few points thoroughly than many sketchily.

B. The steps in preparing a lesson are: goals, body, conclusion and introduction. They are best developed in that order.

1. The introduction prepares the group for the lesson. Only after you know what you want to cover can you introduce it. For that reason it is prepared last. The introduction should:

   a. Arouse interest in the subject.
   b. Establish a common ground between you and the class.
   c. Include humorous or dramatic introduction, if appropriate to the subject.
   d. Tell the class how you plan to conduct the session. (Lecture, discussion, demonstration, whether or not your material will be printed and handed out, etc.)

2. The statement of the goal(s) or main point(s) on which the group will focus its attention. Let them know what's going to be covered, don't keep it a secret.

3. The body of the lesson contains the explanation or development of procedures.

4. The summary and conslusion is a restatement of the important points of the body. It should include:

   a. Telling them what you have told them.
   b. Motivation to take any action suggested in the goal.

Plan Your Presentation

Outline the topics you are going to cover like a script for a play with only dialogue. Two instructors can take the same outline and one can come up with a brilliant performance, while the other flops.

In the margins of the outline, note how the topic is to be developed. Leave at least 1-1/2 inches of margin on the left side.

To get the most effective possible instruction, answer the following questions:

A. How can I motivate and involve the group?
B. What method would be best to put over this topic in my outline?
C. What instructional aids can I use?

Your Delivery

The class assumes you know your subject and are interested. Your delivery must get them interested and hold their attention so they can learn. Some helpful manners to get over the presentation follow:

A. Posture

1. Be comfortable. Present an alert appearance to the audience.
2. Hands are important. Use effective gestures.
3. Don't be a stone statue with movable lips. Move around a bit.
4. Balance can be improved by separating the feet a few inches. Don't be a rocking chair.
5. Use facial and body expressions to emphasize a point.
6. Put your notes where you can easily use them and still maintain eye contact.

B. Present the topic informally in your words. Never read your notes word for word or use long quotations.

C. Avoid too many references to "how we do it when we bicycle".
D. When referring to exhibits, talk informally about them. Don't read something prepared, then go to exhibit as a conclusion.
E. Speak with confidence and authority without "talking down" to the group. Never apologize for lack of preparation or experience--undermines their confidence
F. Be friendly. Talk with rather than at the group. Establish individual personal contact. Eye contact helps.
G. Your voice should be enthusiastic and at ease. Vary your volume to emphasize points. Enunciate clearly. Check with persons in back to make sure you are heard.
H. Keep sentences brief, clear and to the point. Pause briefly between ideas to let them "sink in".
I. Get the audience to participate. Most students enjoy being part of the lesson.

Methods of Preparation

Passive Methods

A. Lecture.

1. Most familiar and overused of the passive methods.

2. Average student can read faster than you can lecture. Unfortunately, you cannot depend on student reading and comprehending all the material. Reading materials sometimes are limited.

3. Advantage of lecture is that you can adjust development of subject to class. If they do not seem to understand a point, dwell on it longer, if they are ahead of you, move on. This advantage is lost if you are glued to your notes.

4. The most effective lecture presentations are informal.

B. Demonstration. Need not always take place in classroom. Can be in shop, outdoors or on the trail. In this case give opportunity to operate or handle equipment.

Sometimes demonstration is merely exhibiting of materials.

C. Panel discussion. Visiting experts or qualified class members can bring out various aspects of a complex or controversial topic.

D. Movies. Should be tied in with the topic at hand, not just filler material. When introducing film, tell what the class should look for. Discussion should follow the film.

Participation Methods

One of the greatest needs in teaching is to increase emphasis on class participation. There are many ways this can be accomplished. A few methods follow:

A. Simulation methods attempt to reproduce, in the classroom, situations that are likely to come up in bicycling.

B. Students then solve the problem, do the project, act out the situation (called role playing by educators), engage in discussion of the whole group, break into buzz groups and report results to entire class, or react to actual and hypothetical cases.

Do's and Don'ts of a Successful Presentation

A. Be sincere, a good listener, courteous, patient and on time (starting and stopping). Occasionally take an opposing viewpoint to stimulate discussion. Once in a while students enjoy "shooting down" the instructor.

B. Don't be an expert on every subject or bring pressure on students to agree with your views. Don't talk over their heads. Use language they understand. Avoid distracting mannerisms.

Using Teaching Aids

The most effective learning takes place when all the students' senses are called into play. If you use modern methods and equipment, you must know what aids and equipment are available, and when and how to use them. Each topic in bicycle safety can use one or more of the following aids:

A. Chalkboards and easel pads. Study and plan beforehand what to put on and where to put it. Use it to present: sketches, diagrams, outlines, key words, definitions, directions, summaries, etc. Suit material to space. Write plainly and quickly. Keep wording simple. Stand at one side while referring to material. Talk to group, not to board. Erase material not needed.

B. Posters, charts and diagrams. To arouse interest and attract attention. To show relationships and trends. To inspire goup. Use device large enough to be seen. Show where everyone can see. Present at right time. Discuss information illustrated.

C. Handout materials. To present information uniform in character and as a guide. Emphasize key points. Arouse interest and discussion. Summarize or review discussions. Serve as a permanent reference.

Select to serve a definite purpose. Introduce at right time. Direct class on how to use materials.

D. Tape recorders. An efficient and effective means of automatic instruction. Although tape recorders differ in design, all models have basic similarity. Become familiar with tape recorder techniques such as recording, editing and splicing.

With a special adapter for some 35mm slide projectors and a stereo tape recorder, special programs can be developed where the narration is automatically synchronized with the slides.

Some manufacturers have prepared short duration tape series for radio. Inquiry may assist on obtaining them.

E. Films and filmstrips. Introduce a new subject. Present an overall view. Arouse interest and summarize. Emphasize specific aspects of a subject.

Arrange room and equipment for showing. Select topics to relate to lessons and plan carefully. Alert class for showing and what will be seen. Run the film. Discuss subject matter and summarize. Too many films have been stuck into classes without proper planning and have become meaningless.

1. 16 mm motion picture projectors handle sound and silent film. Though different makes and models vary in appearance, basic operation is the same.

   Several manufacturers have produced bicycle safety films and more are anticipated in the future.

2. 8 mm motion picture projectors are readily available. Most home movie buffs use this type. An excellent device for smaller groups.

   An inexpensive way to make your own films to bring out a point. If you have access to an 8mm movie camera, this is a good way to organize a class project. Make your own safety films.

3. Slide projectors use 2 x 2" slides. Some models provide remote controls for advance-reverse-focus adjustments. Magazines holding up to 100 slides permit advance planning of picture sequences. (Do not oversaturate class with slides or spend more than 20 seconds on one slide--common faults with most teachers).

   Low in cost and upkeep. Handles commercially prepared slides and specially produced materials for class use by camera wise instructors and students.

4. Filmstrip projectors use 35mm filmstrips. This projector is widely available because of low cost and low upkeep. Most filmstrip projectors have a simple attachment that permits use of 2 x 2" slides.

   Bicycle manufacturers are just beginning to produce this educational media. More are expected in the future.

F. Overhead projector. One of the most versatile classroom teaching devices. This projector allows direct control of an enlarged image on a large screen even in a lighted room. Instructor can face the class during illustrated lecture, watching student reactions, responses and questions. The large flat projection surface permits use of commercially or locally produced transparencies, opaque materials (used as shadow graphs), transparent of translucent objects, and colored marking pens and pencils on cellophane.

Many office photocopy machines will, quickly and ecomonically, produce acetate transparencies for use with this projector.

Your imagination is the only limiting factor when designing class presentations. Many teachers have given up the chalk board and put materials on the overhead projection instead.

REVIEW AND DISCUSSION OF COURSE

It is highly desirable that each of the following sections be closed with a brief summary and a "look ahead" to the next session to be covered. This will give the student a sense of continuity and a feeling of accomplishment as he moves through the experience.

In looking ahead to the next "lesson" the student will have ample time between lessons to relate the course content to his own base of knowledge and experience. He will think of questions or problems relating to the next subject and bring them to class.

In looking back to preceding sections, the class member will reinforce his learning. Possibly he will beve additional questions, or additional supporting thoughts or information to share with the class about the material covered (or left out) during the preceding class.

Looking ahead, or looking back, will no doubt be more or less spontaneous on the part of certain class members. However, the instructor would be wise to include some planned time for such discussion, and set some limits, so as not to cut drastically into the scheduled course content for the day.

Though discussion should be encouraged at each class period to bring about more student involvement, it is desirable to plan for a review and discussion period of longer duration at the end of the classroom sessions and before moving on to the outdoor instruction.

Source - Wisconsin DNR Snowmobile
Safety Training Program

APPENDIX "C"

A CYCLING DICTIONARY OF TERMS

ALIGNMENT--Applies basically to bicycle frame. Dropouts should be parallel; fork blades and stays parallel to top tube; top tube centered between stays; head tube parallel to fork blades; fork blades parallel to each other; stays parallel to each other; seat tube parallel to bottom bracket sides, for example.

ANKLING--Technique of pedaling, in which the foot follows through 180 degrees or more.

BOTTOM BRACKET ASSEMBLY--Axle, bearings, right fixed cone, left adjustable cone, adjustable cone locknut.

BOTTOM BRACKET HANGAR--Short round tube, usually fron 68 to 72mm. long, to which is welded or brazed the seat and down tubes and chainstays, and which accommodates the bottom bracket assembly.

BRAKE LEVERS--Levers mounted on handlebars to actuate caliper brakes.

CABLE--Wire to brakes or derailleur gears.

CALIPER BRAKES--Hand brakes. Actuated by handlebar mounted levers.

CHAIN--Articulated drive unit which transmits power from chainwheel to rear wheel.

CHAIN STAYS--Section of frame from bottom bracket to rear wheel dropout.

CHAINWHEEL--Large wheel with gear teeth on right crank, which delivers power from crank, through chain, to rear wheel. Chainwheel can be single, double, or triple wheel.

COASTER BRAKES--Foot-activated internal hub rear brakes.

COTTERPIN--Holds cranks on bottom bracket axle in cottered crank designs.

CRANK--Steel or dural member, one end of which is threaded to receive pedal, other end of which is fastened to bottom bracket axle. Righthand crank (facing forward) also is fitted with chainwheel.

CYCLOMETER--Bicycle odometer for measuring mileage. Mounts on lower front fork.

DERAILLEUR--From the French "to derail". A mechanism to derail or move chain from one gear to another on either rear wheel or chainwheel.

DERAILLEUR CAGE--Holds rear derailleur idler and jockey wheels.

DOWN TUBE--Part of frame extending from steering head to bottom bracket.

DISHING--Truing rear wheel so rim is centered exactly between outer faces of cone locknuts; necessary because of added width of freewheel. In dishing, rear rim is more toward right of hub centerline, whereas front-wheel rim is centered on hub centerline.

FORK CROWN--Flat or slightly sloping part at top of fork, just under steering head.

FRONT FORK--Part holding front wheel dropouts, which is turned by handlebars to steer bicycle. Included in this unit is steering head (inside head tube of frame), fork blades (round or oval depending on whether a track or road bike), and fork tips.

FRONT DROPOUT--Lub brazed to front fork bottom tips into which front wheel axle fits.

HANDLEBAR STEM--Steel or dural piece, top section of which holds handlebars, bottom part of which fits into top of fork.

HEAD TUBE--Large-diameter tube holding front fork and fork bearings, into which is brazed or welded top and down tubes.

HUB--Front or rear wheel unit drilled to receive spokes and machined to hold axle and bearings.

JOCKEY SPROCKET--The top of the two rear derailleur idler wheels. This wheel moves the chain from one rear wheel gear to another.

MUDGUARDS--Fenders.

MUDGUARD STAYS--Fender braces.

PANNIER--Saddlebag for mounting on rear of bicycle, usually in pairs for balance. Smaller units may also be mounted on the front of bicycle.

QUICK-RELEASE SKEWER--Mechanism to permit removal of front or rear wheels in seconds.
RATTRAP PEDALS--Steel or aluminum alloy body, steel axle, cones, and bearings of open design. For racing or touring, usually with toe clips and straps to hold foot in place and permit 360 degree pressure on pedals.
REAR DROPOUT--Lug brazed or welded to seat stays and chain stays into which rear wheel axle fits.
RIM--Wheel, less spokes and hub.
SADDLE--Seat.
SEAT CLUSTER--A three-way lug into which is brazed or welded top and seat tubes and seat stays.
SEAT POST--A hollow cylinder made of dural or steel, the top end of which holds seat, the bottom section of which fits into seat tube.
SEAT STAYS--Part of frame extending from just under seat to rear wheel dropout.
SEAT TUBE--Part of frame in which seat is placed and which extends from under seat to bottom bracket.
STEERING HEAD--That part of fork just above crown. Threaded to receive headset locknuts and splined or flattened on one side to receive headset washer.
TENSION ROLLER--Bottom of the two rear derailleur idler wheels. This wheel keeps correct tension on the chain.
TIRES, TUBULAR--Ultralightweight track- or road-racing tires. "Sew-ups" with tube sewn in all ground inner periphery of tire.
TIRES, WIRED-ON--Conventional tire, with wire bead that holds tire seated on rim section. Open so tube can be easily removed.
TOE CLIPS--Cage on pedals, to hold feet in position, keep them from sliding off pedals.
TOP TUBE--Horizontal frame member between seat tube and head tube.
TRUING--Also "centering" of rim between axle locknuts. Also concentric (roundness) and lateral (side-to-side) alignment of rim.
VALVE--Where air is put into tire.
VARIABLE GEAR HUB--Rear hub containing two, three or five internal gears and as many gear ratios, shiftable from external gear lever mounted on handlebars or top tube.

Source: The New Complete Book of Bicycling, Eugene A. Sloane, 1974

Appendix D

Resources

BOOKLETS, PAMPHLETS AND MANUALS

AAA
Traffic Engineering & Safety Department
8111 Gatehouse Rd.
Falls Church, Va. 22046

Bicycling Is Great Fun
Terry The Tricycle
Parents, Buying Your Child A Bicycle
Bicycle Safety Program Kit

Department of Public Instruction
126 Langdon Street
Madison, Wisconsin 53702

Wisconsin Bicycle Drivers Handbook
Teachers Curriculum Guide to Safer Bicycle Driving- a supplement to Wisconsin Bicycle Drivers Handbook

Bicycle Manufacturers Association of America, Inc.
1101 Fifteenth Street, N.W.
Washington, D.C. 20005

Bicycle Safety Tests
Helpful Hints on Bicycle Care for Safer Riding
Bikeways- A Plan for Community Recreation
Bicycling- No. 1 Sport for all Ages
Bike Quiz Guide
Bike Ordinances in the Community

Governor's Office of Highway Safety
131 West Wilson Street, Suite 803
Madison, Wisconsin 53702

Wisconsin Pedestrian and Bicycle Safety Plan
Teachers Curriculum Guide to Safer Bicycle Driving- A Supplement to Wisconsin Bicycle Drivers Handbook
Model Programs in Pedistrian and Bicycle Safety for Wisconsin Communities
Wisconsin Bicycle Drivers Handbook
Bicycle Inspection Sheet
Bicycle Safety Certificate
Bicycle and Pedestrian Film List
Law Sheet No. 4 (legislation)
Bicycle Rights and Rules

Employers Insurance of Wausau
Wausau, Wisconsin 54401

A Tale of Two Bike Riders

Department of Business Development
Division of Tourism
Room 117 123 W. Washington Avenue
Madison, WI 53702

The Wisconsin Bikeway
Sugar River State Trail (P.O. Box 781, New Glarus, Wisconsin 53574)
Wisconsin Bicentennial Bikeway Map

National Safety Council
425 N. Michigan Avenue
Chicago, ILL
All About Bikes

Consumer Product Safety Commission
Washington D.C. 20207
Various Leaflets & Information Sheets

League Of American Wheelmen
19 So. Bothwell Avenue
Palatine, Ill 60067
Pamphlets and News Bulletin

Letter code: p - primary
i - intermediate
j - junior high
s - senior high
a - adult

FL - Free Loan
R - Rental
PO - Purchase Only

BICYCLE SAFETY FILMS

A RACE APART a

(Huffman Manufacturing Co.-FL)

* BICYCLE BUILT FOR YOU a/20 min./Color

Instructions for adults on selection and purchasing of bikes, safe riding practices.
(Governor's Office of Highway Safety- FL)

BICYCLE COACHING CLIPS 10 min./Color

Designed for use in the classroom or seminar as an aid in "coaching" good cycling skills and techniques--such as, balance drills, mount/dismount, straignt-line control drills, right/left turn techniques, short radius turns, avoidance maneuvers, emergency stops. Also available in Super 8.
(Valdhere Films, Inc.-R)

THE BICYCLE DRIVER 1973/j-s-a/13.5 min./Color

Short course in common sense rules of the road. Features buying guide and safety guide.
(Association-Sterling Films-FL, University of Illinois-R, Governor's Office of Highway Safety-FL)

BICYCLE DRIVER EDUCATION - WE MUST DO MORE p-i-j-s-a/20 min./Color

Portrays the need and defines the basic ingredients of bicycle driver education at all levels. Also available in Super 8.
(Valdhere Films, Inc.-R)

*BICYCLE DRIVERS DON'T HAVE ACCIDENTS i-j-s/14 min./Color

This film has been produced specifically to meet the learning needs of the 10-14 year-old student/bicycle driver. It is the objective of this film to increase student/cyclist awareness of critical accident causing behavior and thereby decreases the number of serious accidents in this age group. (Governor's Office of Highway Safety-FL)

BICYCLE INSPECTION METHOD 5 min./Color

Designed for teachers, coaches, police, volunteers to show a simple, effective, short method for bicycle safety inspection.
(Valdhere Films, Inc.-R)

* Governor's Office of Highway Safety Free Loan Films

* BICYCLE RIDING REMINDERS 1970/p-i-j/11 min./Color

A police vehicle demonstrates reaction time and braking distance. An automobile demonstrates what happens when it impacts a bicycle and its doll rider at 30 mph. Evaluated as good by bicycle/pedestrian workshop participants.
(AIMS, Inc.-R, American Family Ins.-FL, Governor's Office of Highway Safety Coordination-FL, Michigan State University-R, South Dakota State University-R)

*BICYCLE RULES OF THE ROAD 1965/p-i-j-s/11 min./Color

Reaction time and stopping distance tests feature automobiles and bicycles. Staged automobile-bicycle collisions show what can happen at speeds of 25 and 47 mph.
(AIMS, Inc.-R, Governor's Office of Highway Safety-FL
University of Michigan-R, University of Minnesota-R, Northern Illinois University-R, Indiana State University-R)

BICYCLE SAFETY 1974/p-i-j-s/12 min./Color

This film illustrates typical dangers, shows why accidents happen, and how to avoid them. It demonstrates various safety practices and suggests methods for protection against theft and shows the importance of registering and licensing.
(Film Fair Communications-R)

BICYCLE SAFETY : MAKING THE RIGHT MOVES 1976/i-j-s-a-/15 min/color

Film presents in some detail the concepts of bicycle size and equipment, rules of the road and theft prevention. (Encyclopedia Britanica Educational Corp.-R)

BICYCLE TODAY - AUTOMOBILE TOMORROW 1969/i-j/10 min./Color

This film prepares young bike riders for their role as tomorrow's motorists by instilling in them the necessary driver responsibility and respect for traffic laws. This film uses only a positive approach showing the correct and responsible way of handling their bicycles and themselves.
(Sid Davis-PO, Michigan State University-R)

BICYCLE TOURING i-j-s-a/7 min./Color

Answers most cyclist questions about how to get the most enjoyment out of a weekend bicycle trip--how to start, where to ride, and what to take along. Also available in Super 8.
(Valdhere Films, Inc.-R)

* BICYCLES ARE BEAUTIFUL 1974/p-i-j-s-a/25 min./Color

Bill Cosby narrates. Includes quiz. Can be used as pre-test or post-test. Excellent to use before discussion time. Film is best at building knowledge. Test papers to go with film are available. Evaluated as excellent by bicycle/pedestrian workshop participants.
(Wisconsin Council of Safety-FL, Governor's Office of Highway Safety-FL)

THE BICYCLE'S PROGRESS a

(Huffman Manufacturing Co.-FL)

BICYCLING FOR PHYSICAL FITNESS, HEALTH AND RECREATION i-j-s/14 min./Color

Exercise, transportation, and skill are a few of the examples demonstrated in bicycling for physical fitness, health and recreation. This film clearly defines the benefits of cycling through practical examples and in basic physiological terms.
(AIMS, Inc.-R)

*BICYCLING ON THE SAFE SIDE i-j-s-a/12 min./Color

For the older youth or adult, this film utilizes 10-speed bikes and emphasizes the bike as a practical method of transportation and obtaining exercise. Evaluated as excellent by bicycle/pedestrian workshop participants.
(American Family Ins.-FL, Northern Illinois University-R, Governor's Office of Highway Safety-FL)

THE BICYCLIST p-i/15 min./Color

This is a lively documentary about the experiences of a red bicycle owned by two kinds of drivers, one who obeys the rules and one who doesn't.
(Macmillan Films-R)

BIKE BASICS 1976/ i-j-s-a-/10 min/color

The importance of bicycle care and safety, and the relevant traffic laws and common hazards are introduced in this film.

*BIKE DRIVER MIKE 1975/i-j-s/17 min./Color

The innovative idea behind this bicycle safety film is that a safety-oriented, prepared, young bike driver equals a secure, safety-oriented car driver.
(Perennial Education, Inc.-R, Governor's Office of Highway Safety-FL)

BIKE PEOPLE 1973/j-s/11 min./Color

More and more people are riding bikes today, and this film deals with basic safety precautions, optional equipment, and protection against theft.
(AIMS, Inc.-R, South Dakota State University-R, Southern Illinois University-R)

BIKE TALK i/15 min./Color

Safety taught with humor.
(Sid Davis-PO)

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BIKES ARE BACK 1974/s-a

The film's safety pointers are refreshingly covered by 18-25 year olds; see and be seen, reaction time, maintenance, night cycling, bike paths, etc. (AIMS, Inc.)

BIKEWAYS FOR BETTER LIVING i-j-s-a/21 min./Color

Documents the "state of the art" of bikeway development throughout the United States and Europe and provides some clear definitions and illustrations of the basic classes of bikeways, along with some basic bike safety and regulation elements. Evaluated good+ by bicycle/pedestrian workshop participants. Also available in Super 8.
(Valdhere Films, Inc.-R)

BIKEWAYS- LETS GET SERIOUS 1975/ j-s-a-/20 min/color

Film addresses planning and development of bikeways. (Federal Highway Administration- Box 5428 Madison 53702-FL)

* BIKE-WISE, TO BE SURE 1974/i-j-s-a/16 min./Color

The safety message is clear; bicycles are vehicles and subject to all the rules of the road. The film also shows how to select the best bike for personal needs and gives specific information on how to equip, adjust, and maintain a bicycle.
(University of Minnesota-R, Southern Illinois University-R, Governor's Office of Highway Safety-FL)

CHAMPIONSHIP BIKE SAFETY

(Huffman Manufacturing Co.-FL)

THE CORONA LONDON-HOLYHEAD CYCLE RACE, 1962 a

(Huffman Manufacturing Co.-FL)

CYKISTEN (Bicycle) 1966/i-j

(Milwaukee Public Museum-R)

DAVID WON'T BE HERE TODAY p-i/9 min./Color

When David has an accident enroute to school, his classmates realize that in crossing the street, riding bikes, boarding the bus, and other situations you must not only know the rules of safety--you must follow them. It is intended for use in Social Studies in the Primary Learning Levels.
(McGraw-Hill Films-R)

* THE DAY THE BICYCLES DISAPPEARED 1967/p-i-j/14 min./Color

When all the bicycles in town suddenly disappear, it turns out that they have met to protest the hazardous riding of their owners. Not until each driver signs a safe bicycling pledge, do the bikes agree to be taken home. (AAA-FL, Governor's Office of Highway Safety-----FL, Iowa State University-R, University of Minnesota-R, Indiana State University-R)

EVERYTHING ABOUT BICYCLES 1976/p-i-j-s-a-/20 min/color

An animated look at the history of the bicycle and bicycling - humorous approach. (Pyramid films- Box 1048 Santa Monica, CA 90406)

*GET TO KNOW YOUR TEN-SPEED 1976/j-s-a/14 min./color

While illustrating the fun, action and spirit of bike riding, this film shows how to use a ten-speed bike properly for safety, fitness and pleasure. Demonstrated techniques for responsible and safe riding make this a valuable viewing experience for any bicyclist. Tips on selecting the appropriate bike and accessories, making adjustments, controlling brakes, shifting gears, pedaling, riding, maintaining bicycle condition and observing traffic safety are included. The struggles of Simple Sam, a young man who consistently ignores proper bicycle procedures, are humorously contrasted with several safe, happy and successful bicyclists. (Governor's Office of Highway Safety--FL)

HOW TO PROTECT YOUR BIKE 1973/p-i/12 min./Color

Humor helps to teach it well.
(Sid Davis-PO, University of Illinois-R)

*HUSH PUPPY'S BRIGHT IDEA 1974/p-i-j-s-a/18.5 min./Color

A dramatic and entertaining traffic safety film on nighttime visibility. Vivid demonstrations help to create traffic safety awareness while developing the concept of the pedestrian and cyclists' responsibility to make themselves visible to motorists. Evaluated fair by bicycle/pedestrian workshop participants.
(Countryman Klang, Inc.-R, 3M Company, Film Comm, Inc.Governor's Office of Highway Safety-FL)

I LIKE BIKES - BUT 1978/s-a/20 min./color

Aimed at motorists - good for driver education classes. (Film library, Public Relations Staff, General Motors Corp., Detroit, MI 48202 - FL)

I'M NO FOOL WITH A BICYCLE 1956/p-i/8 min./Color

Walt Disney cartoon. The bicycle, as Jiminy Cricket points out, is a wonderful invention--even more wonderful if we know the right things to do with it. After tracing the history of the bicycle from its first invention in France around 1810 up to the modern safety bike as we know it today, Jiminy graphically illustrates the wrong and the right things to do with a bike.
(AAA-FL, Walt Disney Productions-R, Iowa State University-R, UW-LaCrosse-R, UW-Madison-R, University of Michigan-R, University of Illinois-R, Milwaukee Public Museum-R, University of Minnesota-R, Southern Illinois University-R, Northern Illinois University-R, ROA's Films-R, Allstate Ins. Co.-FL Governor's Office of Highway Safety--FL)

IF BICYCLES COULD TALK 1966/i-j-s/14 min./Color

Shows two old bicycles in a repair shop recalling by flashback the neglect and recklessness which resulted in damage to them and injuries to their owners. Contrasts the fate of a new bicycle whose owner studies the rules of the road, passes a skill test in handling a bicycle and practices the rules of safe riding.
(Iowa State University-R)

*"IT'S YOUR MOVE" Series 1977/i-j/15 min./color

A series of 9 films using mini-drama to reach youngsters. Each film is 15 min. long. "It's Your Move" educational TV Series on 16mm film.

Program 1 - Crossroads
Program 2 - The Safest Way
Program 3 - On The Road
Program 4 - The First Time
Program 5 - See It My Way
Program 6 - Play It Safe
Program 7 - You Be The Judge
Program 8 - In The Driver's Seat
Program 9 - It's Up To You
Program 10 - Taking Care
Program 11 - Why Rules
Program 12 - Watch It

* JUST LIKE A CAR i-j/12 min./Color

Motivates and developes enthusiasm for bicycle safety. Illustrates specific operating skills such as hand signals, turning procedures, riding on the right, hazard identification, defensive driving. Film loops-PO (Governor's Office of Highway Safety-FL)

*KEEPING A SAFE BICYCLE 1977/j-s/20 minutes/Color

This film reviews the various types of bicycles available, how to adjust the bicycle to the driver, and how to make minor adjustments and repairs. (Governor's Office of Highway Safety--FL)

LIGHTWEIGHT BICYCLE ASSEMBLY SERIES s-a/Color

Intended for training of bicycle mechanics on how to set up and assemble Schwinn lightweight, derailleur-geared bicycles. A set of 5 sound, color movies, available only in Fairchild Super 8 cartridges, each unit runs 8 to 10 minutes in length.
(Valdhere Films, Inc.-R)

THE MAGIC OF THE BICYCLE i-j-s-a/28.5 min./Color

A classic document which traces the history and evolution of the bicycle from its invention to the present day. The closing comments by Dr. Paul Dudley White on the health benefits of cycling will be remembered for generations.
(Valdhere Films, Inc.-R, Huffman Manufacturing Co.-FL)

MIKE THE BIKE 1974/i-j-s/11 min./Color

The film demonstrates correct ways to ride on streets and highways, and shows the importance of properly equipping bikes and checking their condition and handling before taking them on the road. Viewers will learn of the legal obligations of both cyclists and motorists while sharing the road.
(Oxford Films-R)

MONKEY TALE 1954/p-i/9 min./B&W

This unusual film from New Zealand contains amusing and effective illustrations of both the safe and the dangerous ways to ride a bicycle. The demonstrations are performed by a family of monkeys.
(Encyclopedia Brittanica Educational Corp.-R, UW-LaCrosse-R, UW-Madison-R, University of Michigan-R, University of Minnesota-R, University of Ill.-R)

* ONE GOT FAT 1963/p-i-j/15 min./Color

Safety rules are emphasized in this story of ten cyclists on their way to a picnic. Nine make mistakes and suffer major accidents. The lone survivor reaches the picnic, gets fat because he has observed the rules for bicycle safety.
(Iowa State University-R, University of Michigan-R, Perennial Education,Inc.-R, University of Illinois-R, Governor's Office of Highway Safety-FL)

* ONLY ONE ROAD j-s-a/25 min./Color

Realistic in presentation of problems. Covered knowledge of bicycle safety, correct procedures, bicycle skills. Covers all ranges and types of bikers. Also show to civic and service groups. A must in your program. Evaluated as excellent by bicycle/pedestrian workshop participants.
(AAA-FL, Governor's Office of Highway Safety-FL)

PLANNING A COMMUNITY BIKE SAFETY PROGRAM a

(Huffman Manufacturing Co.-FL)

PLAY IT SAFE s-a/27 min./Color

Describes a bicycle safety campaign conducted by community leaders in White Plains, New York, to illustrate how school children can be taught to use bicycles safely.
(Northern Illinois University-R)

PRO SHOP - DERAILLEUR OPERATION i-j-s-a/6 min./Color

Designed to answer the basic questions of new cyclists about derailleur gears--when and how to use them, some fine points of technique and some practices to avoid.
(Valdhere Films, Inc.)

RIDE ON p-i/14 min./Color

The film opens with a comic recap of the history of the wheel, and the progress of the bicycle--right down to today's gear-shifting, ultra-sophisticated models. In a realistic bike rodeo, staged by police at a school, children demonstrate the do's and don'ts of modern safe bike riding; how to cross through traffic, observe traffic lights and signs, be careful about passing parked cars. Evaluated as good by bicycle/pedestrian workshop participants.
(McGraw-Hill Films-R, ROA's Films-R)

* RIDE ON BY(BICYCLE ENFORCEMENT) a/12 min./Color

Enforcement problems that a modern police department has to contend with. Considers enforcement from the traffic officer's point of view.(Governor's Office of Highway Safety-FL)

ROAD TO ADVENTURE i-j-s-a/28.5 min./Color

A lyrically beautiful portrait of the joys of bicycle touring both in small groups and in larger groups.
(Valdhere Films, Inc.-R, Huffman Manufacturing Co.-FL)

SAFE BICYCLING 1959/p-i-a/13 min./Color

How care, courtesy, and common-sense practices cultivated in bike-riding days will lead to proficiency and good safety habits later on is demonstrated, as the gang goes on a bicycle trip to a picnic grove. The parent's responsibility for the safety of his child's bicycle is emphasized.
(International Film Bureau-R, Iowa State University-R, Michigan State University-R, University of Minnesota-R)

THE SINGING WHEELS i-j-s-a/28.5 min./Color

A nostalgic document on the revival of American interest in bicycle track racing during the 50's and 60's. This exciting film features some truly remarkable on-track racing scenes shot from bicycle-mounted camera during competition.
(Valdhere Films, Inc.-R, Huffman Manufacturing Co.-FL)

SOMEBODY STOLE MY BIKE p-i-j-s-a/20 min./Color

About theft and prevention.
(Sid Davis-PO)

SPOKEY THE CLOWN AND HIS MAGIC BIKE 1973/p-i/15 min./Color

Shows safe stopping, turning, riding on streets, safety equipment for night riding, and reminds the viewer to avoid riding double, driving abreast, and between lanes of automobiles.
(University of Minnesota-R, Screen Educational enterprises, Inc. P.O. BOX 19126, Seatle, WA 98109 -R)

* STEP LIGHTLY 1968/i-j-s-a/20 min./Color

Retro-reflective materials for bicycles and motorcycles. Illustrates the application of the material and the use during the hours of darkness, on bikes, motorcycles as well as the people who ride them. Evaluated as excellent by bicycle/pedestrian workshop participants.
(Countryman Klang, Inc.-R, Governor's Office of Highway Safety-FL Southern Illinois University-R, 3M Company, Film Comm, Inc.)

STOP AND GO ON A BIKE p-i/13 min./Color

Stop and Go, the safety twins, teach Chuck how to ride a bike safely in traffic. They teach him how to identify and obey signs and regulations, and how to get into the habit of safety.
(Southern Illinois University-R)

STRAIGHT TALK ABOUT DEFENSIVE BIKE RIDING i-j-s-a/9.5 min./Color

Portrays the most basic concepts of defensive bicycle driving--proper fit, cor ect mount and dismount, straight-line riding, emergency stops, brake checks, handling poor surface conditions, night riding, follow rules of the road.
(Valdhere Films, Inc.-R)

TELEVISION PUBLIC SERVICE ANNOUNCEMENTS Color
SET I AND SET II

Each set contains 7 thirty-second spots for TV free public service usage.

SET I:
Each spot devotes twenty-seconds to one concept of bicycle safety or bicycle care, plus a final ten-second appeal to "license and register your bicycle." Subjects: Traffic Laws Apply--Lock Your Bike--Correct Tire Pressure--License Your Bike--Serial Numbers--Lights and Bell or Horn--Clean and Lubricate.

SET II:
Same as above, except subjects are: Point of View--Invisible Lane--Night Riding--Eye Contact--The Topper Effect--Plan Your Ride--Ride for Fitness.

(Valdhere Films, Inc.-R)

THE TOUR OF KETTERING a

(Huffman Manufacturing Co.-FL)

* TRIPPING ON TWO 1975/j-s-a/25 min./Color

Takes your students on a joyful and instructive trip through the happy world of the bicyclist and shares abundant "trip tips." Evaluated as excellent by bicycle/pedestrian workshop participants.
(Doron Precision Systems, Inc.-R, Governor's Office of Highway Safety-FL)

TWO FOR THE ROAD

This film is still in production and will be available after January 1, 1976.
(Journal Films, Inc.)

WHEELIN AND STEALIN 1974/i-j-s/9 min./Color

Emphasizes the various protective measures a bicycle owner can and should take to protect his bicycle from the growing threat of theft. In comedic but highly impressive style, the film demonstrates protective measures required to foil bicycle thieves.
(Oxford Films-R)

YOU AND YOUR BICYCLE 1960/p-i-j-s/11 min.

Covers all phases of bicycle safety, including maintenance. A portion of this film shows unsafe practices to avoid and what will happen if they are followed. In this group are shown hitching rides, stunting, riding double, passing cars on the wrong side, etc.
(University of Michigan-R, University of Minnesota-R, Progressive Pictures-R)

YOUR CHILD'S SAFETY a/10 min./B&W

Shows what the parent should teach the pre-school child to prepare him to safely negotiate the trip to and from school. Included are: teaching the child his address and phone number; safe pedestrian habits; not accepting rides with strangers; safe school bus practices and steps prior to permitting bicycling.
(Progressive Pictures-R)

RICKY RACCOON SHOWS THE WAY 1977/p/15 min./color

Designed to show kindergarten-to-third grade students the correct and safe ways to get to and from school. The students will enjoy the animated Ricky Raccoon character as he entertainingly explains safety rules to eight year old Jackie.

FILM VENDORS

AAA. Wisconsin Division
Safety Department
433 West Washington Avenue
Madison, Wisconsin 53701

AIMS, Instructional Media
Services, Inc.
P. O. Box 1010
Hollywood, California 90028

American Family Insurance Group
Film Library
P. O. Box 471
Madison, Wisconsin 53701

Association-Sterling Films
600 Grand Avenue
Ridgefield, New Jersey 07657

Carlton Films
2870 Bartells Drive
Beloit, Wisconsin 53511

Countryman-Klang Inc.
905 Park Avenue
Minneapolis, Minnesota 55401

Curriculum Materials Corp.
1319 Vine Street
Philadelphia, Pennsylvania 19107

Sid Davis Productions
1046 South Robertson Boulevard
Los Angeles, California 90038

Walt Disney Productions
Division 2400 W. Alameda Avenue
Burbank, California 91503

Division of Highway Safety Coordination
131 West Wilson Street
Room 803
Madison, Wisconsin 53702

Doron Precision Systems Inc.
P. O. Box 400
Binghamton, New York 13902

Encyclopedia Brittanica Educational Corp.
Chalet Office Plaza, Suite 340
1000 Skokie Boulevard
Wilmette, Illinois 60091

Film Comm Inc.
Audience Planners
208 South LaSalle Street
Chicago, Illinois 60604

Film Fair Communications
100900 Ventura Boulevard
Studio City, California 91604

Huffman Manufacturing Company
P. O. Box 1204
Dayton, Ohio 45401

University of Illinois
Visual Aids Service
Champaign, Illinois 61822

Indiana State University
Audio-Visual Center
Terre Haute, Indiana 47808

International Film Bureau, Inc.
332 South Michigan Avenue
Chicago, Illinois 60604

Iowa State University
Media Resources Center
121 Pearson Hall
Ames, Iowa 50010

Journal Films, Inc.
909 West Diversey Parkway
Chicago, Illinois 60614

University of Wis.-LaCrosse
Audio-Visual Center
1705 State Street
LaCrosse, Wisconsin 54601

McGraw-Hill Films
Text-Film Division
1221 Avenue of the Americas
New York, New York 10020

Macmillan Films
34 MacQuesten Parkway
Mt. Vernon, New York 10550

University of Wis.-Extension
Bureau of Audio-Visual Instruction
1327 University Ave., P.O. Box 2093
Madison, Wisconsin 53701

Michigan State University
Instructional Media Center
East Lansing, Michigan 48824

University of Michigan
Audio-Visual Education Center
416 Fourth Street
Ann Arbor, Michigan 48103

Milwaukee Public Museum
Audio-Visual Center
815 North 7th Street
Milwaukee, Wisconsin 53233

Minnesota Mining & Mfg. Company
3M Center, Building 224-62
St. Paul, Minnesota 55101

University of Minnesota
Audio-Visual Library Service
Continuing Education and Extension
Minneapolis, Minnesota 55414

Northern Illinois University
Division of Communication Services
DeKalb, Illinois 60115

Oxford Films
1136 North Las Palmas Avenue
Los Angeles, California 90038

Perennial Education
1825 Willow Road
Northfield, Illinois 60093

Progressive Pictures
1810 Francisca Court
Benicia, California 94510

Raleigh Industries, Ltd.
Enid, Oklahoma 73701

ROA's Films
1696 North Astor Street
Milwaukee, Wisconsin 53202

South Dakota State University
Audio-Visual Center
Brookings, South Dakota 57006

Southern Illinois University
Learning Resources Service
Carbondale, Illinois 62901

Valdhere Films, Inc.
3060 Valleywood Drive
Dayton, Ohio 45429

Wisconsin Council of Safety
303 Price Place
Madison, Wisconsin 53705

Allstate Insurance Company
555 South Executive Drive
Brookfield, Wisconsin 53005

BOOKS

Title	Author	Publisher/source and year
Bicycling (handbook) 120 pp.	George S. Fichter Keith Kingbay	Western Publishing Co., Inc. Racine, WI 53401 (1972)
Bikes (guide to selection, care, repair, maintenance, safety, fun, etc.) 165 pp.	Stephen C. Henkel	Chatham Press, Inc. 15 Wilmot Lane Riverside, Conn. 06878 1972
The Backpocket Bicycle Book 137 pp.	Don Earnest	Warner Books, Inc. 75 Rockefeller Plaza New York, N.Y. 10019 1973
Richard's Bicycle Book 288 pp.	Richard Ballantine	Random House, Inc. 201 E. 50th Street New York, N.Y. 10022 1972
The Super Handyman's Big Bike Book 176 pp.	Al Carrell	Prentice-Hall, Inc. Englewood Cliffs, N.J. 07632 1973
The Complete Buyer's Guide to Bicycles 127 pp.	Editor: Eleanor Moore	Service Communications Ltd. 50 Rockefeller Plaza New York, N.Y. 10020 1974
Fix Your Bicycle 100 pp.	Eric Jorgensen Joe G. Bergman	Clymer Publications (1972) 222 N. Virgil Ave. Los Angeles, CA 90004
Bike-Ways (101 Things to do with a bike) 128 pp.	Lillian Godfrey Frankel Godfrey	Sterling Publishing Co. 419 Park Ave., S. New York, N.J. 10016 1971
How to Choose and Use a Bicycle Without Doing Something Dumb 116 pp.	Peter Braddock	Tobey Publishing Co. Box 428 New Canaan, CT 06840 1973
Anybody's Bike Book (manual of bicycle repairs) 176 pp.	Tom Cuthbertson	Ten Speed Press 2510 Bancroft Way Berkely, CA 94704 1971
A New Complete Book of Bicycling 506 pp.	Eugene A. Sloane	Simon & Schuster Rockefeller Center 630 - 5th Ave. New York, N.Y. 10020 1974

Glenn's Complete Bicycle Manual 339 pp.	Clarence W. Coles Harold T. Glenn	Crown Publishers Inc. 419 Park Ave., S. New York, N.Y. 10016 1973
DeLong's Guide to Bicycles and Bicycling 269 pp.	Fred DeLong	Chilton Book Company Radnor, PA 19087 1974
Wisconsin Bike Trips 48 pp.	Phil Van Valkenberg	World Publications P.O. Box 366 Mountain View, CA 94040 1974
Inside Bicycling 123 pp.	Keith Kingbay	Henry Regnery Company Chicago 1977
Effective Cycling	John Forester	Custom Cycle Fitments 782 Allen Court Palo Alto, California 1975

PERIODICALS

Bicycling!
P. O. Box 10098
Palo Alto, CA 94303

Bike World
Box 366
Mountain View, CA 94042

League of American Wheelmen Bulletin
19 South Bothwell
Palatine, IL 60067

Midwest Bicycle Review
P. O. Box 05972
Milwaukee, WI 53205

Ped 'N' Cycle Trailblazer
Governor's Office of Highway Safety
131 W. Wilson St., Rm. 803
Madison, Wi 53702

WISCONSIN BICYCLE CLUBS

Appleton YMCA Bike Club
218 E. Lawrence St.
Appleton, WI 54911

AYN Wisconsin Council
P. O. Box 233
Hales Corners, WI 53130

Bombay Bike Club
5728 Monona Drive
Madison, WI 53716

Boys Brigade Bike Club
821 Arthur St.
Menasha, WI 54952

Chippewa Bicycle Club LTD
347 W. Cedar St.
Chippewa Falls, WI 54729

Falcon Wheelers
c/o Village Pedaler Bike Shop
114 E. Elm
River Falls, WI 54022

Fort Freewheelers
561 Lucile St.
Fort Atkinson, WI 53538

Manitowoc Bicycling Club
c/o Manitowoc Recreation Department
City Hall
Manitowoc, WI 54220

Mid-American Bike Club
3007 N. 88th St.
Milwaukee, WI 53222

Milwaukee Wheelmen
2607 North Downer Ave.
Milwaukee, WI 53211

North Roads Bicycle Club
307 West Newton
Rice Lake, WI 54868

Fox Valley Wheelers
3340 N. Lynndale Dr.
Appleton, WI 54911

Junior Optimist Boy's Bicycle Club
Juvenile Officer
Fond du Lac Police Department
Fond du Lac, WI 54935

Kenosha Road Runners, c/o D.I.Schmelling
475 43rd St.
Kenosha, WI 53140

Kettle Moraine Chain Gang
111 West Washington St.
West Bend, WI 53095

La Crosse Wheelmen
P.O. Box 1342
La Crosse, WI 54601

Lake Shore Pedalers
c/o Wolf Cycles Ltd.
2510 Washington
Manitowoc, WI 54220

League of Wisconsin Wheelmen
Box 650
Milwaukee, WI 53201

Rock County Cycling Society
2636 Britt Road
Janesville, WI 53545

St. Croix Hilltop Bikers
210 Ninth St.
Hudson, WI 54016

Schlitz Wheelmen
581 E. Fox Dale Road
Fox Point, WI 53217

Tri-State Bicycle Touring Society
1025 Green Bay St.
La Crosse, WI 54601

Northeastern Wisconsin Rd. Club
Fish Creek, WI 54868

Oasis 2000
Box 1, Admin. Bldg.
University Drive
Rice Lake, WI 54868

Oshkosh Bike Route
c/o Charles E. Drayna, Dir.
Oshkosh Recreational Dept.
215 South Eagle St.
Oshkosh, WI 54901

Pyramid Pedal Pushers
c/o Bernard H. Lincks, Jr.
Route 1, Box 68B
Lake Mills, WI 53551

Milwaukee Wheelmen Touring Club
c/o Larry Gleason
520 E. Courtland Pl.
Shorewood, Wi

Kenosha Wheelmen
c/o Joanna Thiem
4816 Harding Rd.
Kenosha, Wi 53211

Two-Tyred Wheelmen
c/o Yellow Jersey Co-op
419 State St.
Madison, WI 53703

Uneasy Riders
21 Thorn Ln.
Madison, WI 53702

Wheel People Touring Society
Route 1, P.O. Box 403
Lake Geneva, WI 53147

Midwest Bicycle Review
P.O. Box 05972
Milwaukee, WI 53205

BICYCLE DRIVER TRAINING COURSE REGISTRATION CARD

(sponsoring organization)	(instructor number)
(name of meeting place)	(instructor name)
(address)	(instructor address)
(state and zip code)	(county)

Dates classes will be held: Each_____beginning on (date)_____
at _____ (A.M. or P.M.) (circle one) Other_____
Number of students expected _____. Remarks: _____

Signature of instructor_____

Mail to: Gov.'s Office of Highway Safety, 131 W. Wilson Street, Suite 803, Madison, WI 53702

BICYCLE DRIVER TRAINING COURSE
STUDENT REGISTRATION CARD

__M __F

(NAME- last, first, middle initial) (phone no.) Sex

(street, city, state, zip) (county)

I request to attend the Wisconsin Bicycle Course. I agree to obey the orders of the instructors and will conduct myself in a respected manner.

_____(Signature of student)

I, the undersigned, being the parent or legal guardian of the above named child, a minor, hereby consent to said minor's participation in the course of instruction relating to the safe use of bicycles administered by the State of Wisconsin, Gov.'s Office of Highway Safety.

_____(Signature of parent)

Student certified ___YES ___NO _____
(Instructor's signature)

(please complete other side)

Checklist For Instructor

The following checklist, if carefully used will help the instructor rate the student's progress. Enter your comments or simply mark satisfactory or unsatisfactory.

1. Class Attendance Record
   1.____ 2.____ 3.____ 4.____
   5.____ 6.____ 7.____ 8.____
2. Understanding the purpose of course.
3. Knowledge of basic bike laws.
4. General knowledge of bicycle & its use.
5. Proper handling of bicycle.
6. Attention to instruction.
7. Knowledge of responsibilities to others.
8. Demonstrated self control.
9. Final exam grade_____.
10. If you did not certify student, list reasons below.

Upon completion of course, return card to: Gov.'s Office of Highway Safety, 131 West Wilson St., Madison, WI 53702